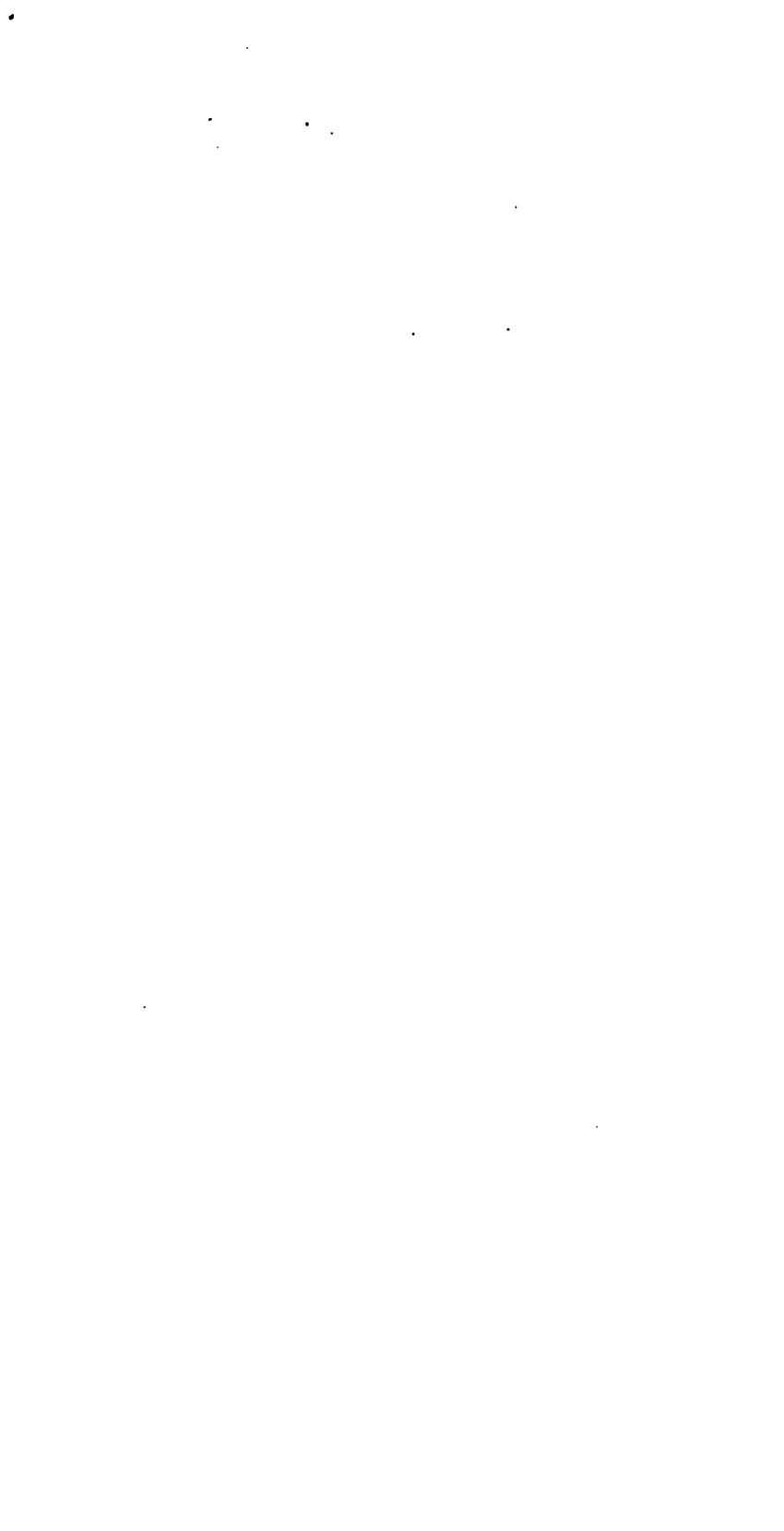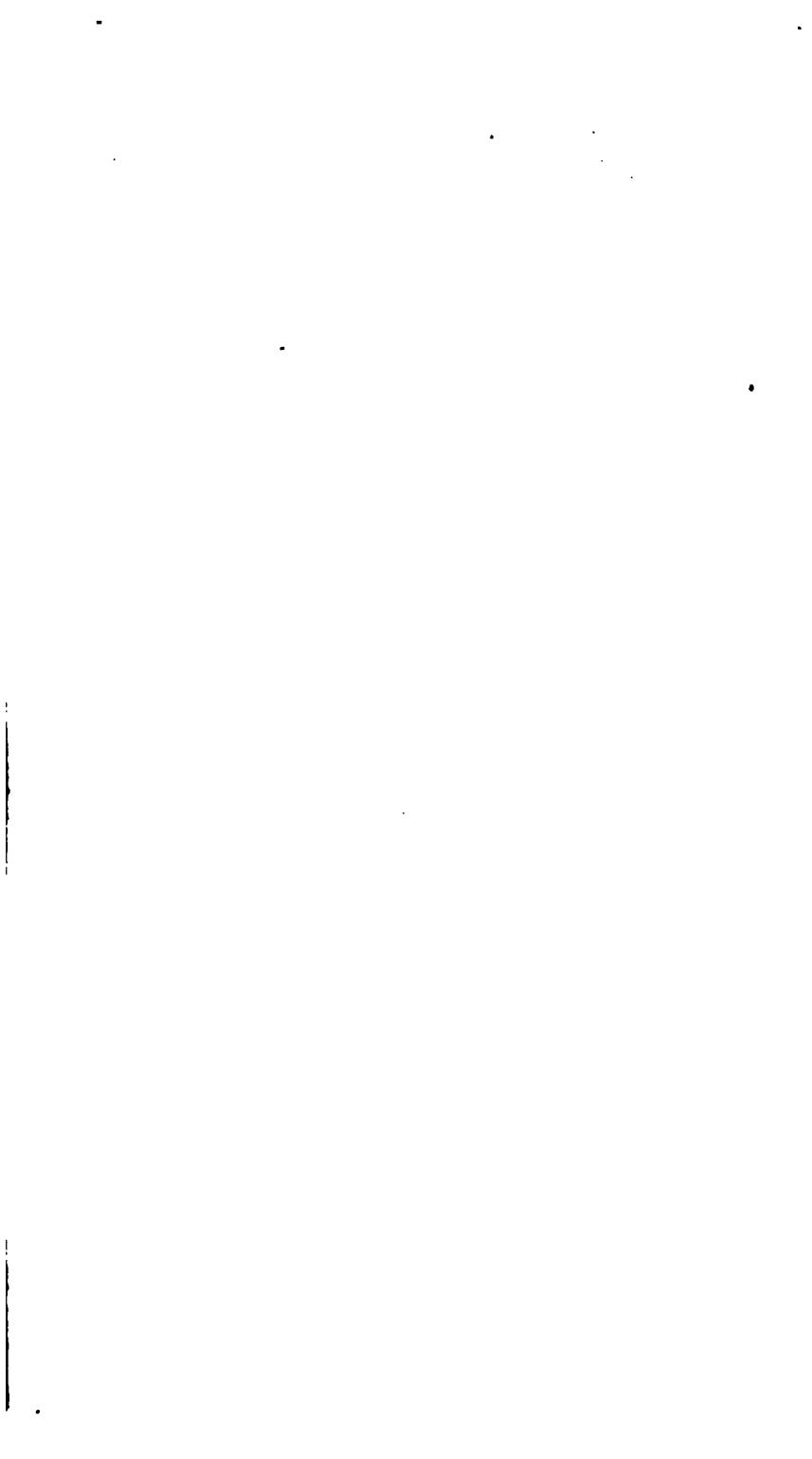.

ON THE

VALUE OF ANNUITIES

AND

REVERSIONARY PAYMENTS,

WITH

NUMEROUS TABLES.

BY

DAVID JONES,

ACTUARY TO THE UNIVERSAL LIFE ASSURANCE OFFICE.
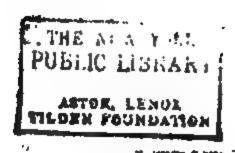
VOLUME II.

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CONTENTS OF VOLUME II.

USEFUL FORMULÆ FOR TABLES IN VOL. II.

THE value of an annuity during the joint continuance of two lives, aged m and m_1, is

$$\frac{N_{m, m_1}}{D_{m, m_1}}$$

The value of an annuity for the term of n years, subject to the joint continuance of two lives, aged m and m_1, is

$$\frac{N_{m, m_1} - N_{m+n, m_1+n}}{D_{m, m_1}}$$

The value of an annuity to be entered upon at the expiration of n years, and to continue so long as two lives, aged m and m_1, shall jointly survive that term, is

$$\frac{N_{m+n, m_1+n}}{D_{m, m_1}}$$

The value of an assurance of £1 payable on the failure of the joint existence of two lives, aged m and m_1, is

$$1 - (1 - r) \frac{N_{m-1, m_1-1}}{D_{m, m_1}}$$

The annual premium for the same

$$\frac{D_{m, m_1}}{N_{m-1, m_1-1}} - (1 - r)$$

The value of an assurance of £1 payable on the failure of the joint existence of two lives, aged m and m_1, provided that event happen within the term of n years, is

$$\frac{r(N_{m-1, m_1-1} - N_{m+n-1, m_1+n-1}) - (N_{m, m_1} - N_{m+n, m_1+n})}{D_{m, m_1}}$$

The annual premium is

$$r - \frac{N_{m, m_1} - N_{m+n, m_1+n}}{N_{m-1, m_1-1} - N_{m+n-1, m_1+n-1}}$$

The single premium for an assurance on a life aged m, against a life aged m_1, is

When $m - 1$ is greater than m_1

$$\frac{1}{2}\left\{ 1 + \frac{r(N_{m-1, m_1-1} + N_{m-1, m_1}) - (N_{m-1, m_1-1} + N_{m, m_1-1})}{D_{m, m_1}} \right\}$$

the annual premium is

$$\frac{1}{2}\left\{ \frac{D_{m, m_1} + r(N_{m-1, m_1-1} + N_{m-1, m_1}) - (N_{m-1, m_1-1} + N_{m, m_1-1})}{N_{m-1, m_1-1}} \right\}.$$

When $m_1 - 1$ is greater than m, the single premium is

$$\frac{1}{2}\left\{1 - \frac{(N_{m-1, m_1-1} - N_{m-1, m_1}) - r(N_{m-1, m_1-1} - N_{m, m_1-1})}{D_{m, m_1}}\right\}$$

the annual premium is

$$\frac{1}{2}\left\{\frac{D_{m, m_1} + r(N_{m-1, m_1-1} - N_{m, m_1-1}) - N_{m-1, m_1-1} + N_{m-1, m_1}}{N_{m-1, m_1-1}}\right\}.$$

The single premium for the term of t years is,

When $m - 1$ is greater than m_1

$$\frac{1}{2}\left\{\frac{r(N_{m-1, m_1-1} - N_{m+t-1, m_1+t-1} + N_{m-1, m_1} - N_{m+t-1, m_1+t}) - (N_{m, m_1} + N_{m, m_1-1})}{D_{m, m_1}}\right.$$

$$\left.+ \frac{N_{m+t, m_1+t} + N_{m+t, m_1+t-1}}{D_{m, m_1}}\right\}.$$

When $m_1 - 1$ is greater than m,

$$\frac{1}{2}\left\{\frac{rN_{m-1, m_1-1} - N_{m+t-1, m_1+t-1} - N_{m, m_1-1} + N_{m+t, m_1+t-1}}{D_{m, m_1}}\right.$$

$$\left.- \frac{(N_{m, m_1} + N_{m+t-1, m_1+t}) + N_{m+t, m_1+t} + N_{m-1, m_1}}{D_{m, m_1}}\right\}.$$

Substituting in the denominator of these last two formulæ
$N_{m-1, m_1-1} - N_{m+t-1, m_1+t-1}$ for D_{m, m_1}, we have the annual premium.
The probability of a life aged m dying before a life aged m_1, is

$$\frac{D_{m, m_1} + N_{m-1, m_1} - N_{m, m_1-1}}{2 D_{m, m_1}}$$

TABLE XXVII.   559

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference 0.

Common Age.	D.	N.	Common Age.	D.	N.
0	100000000.	1048008449.8	52	3931331.8	40158086.2
1	69503418.7	978505031.1	53	3701669.0	36456417.2
2	57039156.5	921465874.6	54	3478722.2	32977695.0
3	48421129.9	873044744.7	55	3264235.3	29713459.7
4	43510991.3	829533753.4	56	3056577.4	26656882.3
5	39851843.2	789681910.2	57	2855855.2	23801027.1
6	37325815.8	752356094.4	58	2658004.4	21143022.7
7	35353898.6	717002195.8	59	2457166.7	18685856.0
8	33723006.6	683279189.2	60	2252604.0	16433252.0
9	32311400.3	650967788.9	61	2042967.1	14390284.9
10	31052229.3	619915559.6	62	1844045.5	12546239.4
11	29877725.7	590037833.9	63	1658895.0	10887344.4
12	28728519.9	561309314.0	64	1489725.9	9397618.5
13	27613546.4	533695767.6	65	1333579.3	8064039.2
14	26532128.6	507163639.0	66	1190529.5	6873509.7
15	25475500.8	481688138.2	67	1059690.3	5813819.4
16	24428219.4	457259918.8	68	939517.0	4874302.4
17	23399592.5	433860326.3	69	829381.3	4044921.1
18	22404978.4	411455347.9	70	728079.1	3316842.0
19	21450561.3	390004786.6	71	635745.2	2681096.8
20	20534781.6	369470005.0	72	546718.9	2134377.9
21	19656139.2	349813865.8	73	460934.0	1673443.9
22	18819456.6	330994409.2	74	380323.3	1293120.6
23	18016625.4	312977783.8	75	305659.3	987461.3
24	17246331.6	295731452.2	76	242770.6	744690.7
25	16507309.5	279224142.7	77	189658.6	555032.1
26	15792930.5	263431212.2	78	146696.0	408336.1
27	15107826.6	248323385.6	79	113112.4	295223.683
28	14440799.0	233882586.6	80	85350.847	209872.836
29	13777339.8	220105246.8	81	63919.845	145952.991
30	13114430.2	206990816.6	82	46561.139	99391.852
31	12476488.8	194514327.8	83	33380.009	66011.843
32	11867107.5	182647220.3	84	23366.004	42645.839
33	11289215.5	171358004.8	85	16052.990	26592.849
34	10741180.9	160616823.9	86	10600.608	15992.241
35	10217643.7	150399180.2	87	6694.912	9297.329
36	9717579.2	140681601.0	88	3993.009	5304.320
37	9236485.0	131445116.0	89	2359.632	2944.688
38	8773832.7	122671283.3	90	1410.025	1534.663
39	8329103.8	114342179.5	91	748.499	786.16367
40	7895563.0	106446616.5	92	370.76423	415.39944
41	7467510.6	98979105.9	93	186.60601	228.79343
42	7051645.2	91927460.7	94	99.40789	129.38554
43	6650876.5	85276584.2	95	54.28829	75.09725
44	6270217.2	79006367.0	96	30.98005	44.11720
45	5908756.3	73097610.7	97	18.42189	25.69531
46	5568011.5	67529599.2	98	10.81952	14.87579
47	5246833.3	62282765.9	99	6.48485	8.3909445
48	4946320.2	57336445.7	100	4.2146600	4.1762845
49	4669346.5	52667099.2	101	2.4753487	1.7009358
50	4410133.0	48256966.2	102	1.2261485	.4747873
51	4167548.2	44089418.0	103	.4285568	.0462305

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age One Year.

Ages	D.	N.	Ages	D.	N.
0 & 1	82145631.	997544037.8	52 & 53	3758807.0	37692444.3
1..2	62039889.7	935504148.1	53..54	3535819.2	34156625.1
2..3	51782763.8	883721364.3	54..55	3320335.6	30636289.5
3..4	45227058.0	838494300.3	55..56	3112359.9	27723929.6
4..5	41030336.7	797463969.6	56..57	2911167.4	24612762.2
5..6	38002332.2	759461637.4	57..58	2714734.1	22098027.8
6..7	35791543.7	723668093.7	58..59	2518120.7	19579907.1
7..8	34022262.1	689645831.6	59..60	2318147.7	17261759.4
8..9	32525383.2	657120448.4	60..61	2113754.3	15148005.1
9..10	31210855.2	625909593.2	61..62	1912484.4	13235520.7
10..11	30012456.6	595897136.6	62..63	1723362.5	11512158.2
11..12	28867673.6	567029463.0	63..64	1548973.6	9963184.6
12..13	27752308.1	539277154.9	64..65	1388813.6	8574371.0
13..14	26670338.6	512606816.3	65..66	1241540.5	7332830.5
14..15	25617031.4	486989784.9	66..67	1106728.2	6226102.3
15..16	24580383.8	462409401.1	67..68	983157.8	5242944.5
16..17	23557621.6	438851779.5	68..69	869782.8	4373161.7
17..18	22560971.6	416290807.9	69..70	765680.9	3607480.8
18..19	21600956.6	394689851.3	70..71	670366.4	2937114.4
19..20	20679772.7	374010078.6	71..72	580904.8	2356209.6
20..21	19795913.3	354214165.3	72..73	494632.6	1861577.0
21..22	18951083.1	335263082.2	73..74	412550.6	1449026.4
22..23	18143524.4	317119557.8	74..75	335951.6	1113074.8
23..24	17368666.7	299750891.1	75..76	268409.8	844665.0
24..25	16625239.0	283125652.1	76..77	211429.6	633235.4
25..26	15909293.8	267216358.3	77..78	164352.6	468882.82
26..27	15219968.4	251996389.9	78..79	126924.6	341958.22
27..28	14558853.2	237442536.7	79..80	96814.55	245143.670
28..29	13898236.1	223544300.6	80..81	72778.509	172365.161
29..30	13244598.1	210299702.5	81..82	53754.034	118611.127
30..31	12603822.8	197695879.7	82..83	38845.115	79766.012
31..32	11989471.0	185706408.7	83..84	27517.997	52248.015
32..33	11404748.5	174301660.2	84..85	19083.217	33164.798
33..34	10850238.5	163451421.7	85..86	12853.599	20311.199
34..35	10322449.9	153128971.8	86..87	8300.786	12010.413
35..36	9618289.0	143310682.8	87..88	5094.528	6915.885
36..37	9334945.6	133975694.2	88..89	3024.500	3891.385
37..38	8870118.4	125105575.8	89..90	1797.284	2094.101
38..39	8423162.9	116682412.9	90..91	1012.255	1081.8455
39..40	7990465.3	108691947.6	91..92	519.0699	562.77355
40..41	7565904.7	101126042.9	92..93	259.17501	303.60054
41..42	7150139.9	93975903.0	93..94	134.20065	169.39989
42..43	6747859.9	87228043.1	94..95	72.38438	97.01551
43..44	6363002.9	80865040.2	95..96	40.40576	56.60675
44..45	5997506.4	74867533.8	96..97	23.53909	33.06766
45..46	5651704.9	69215828.9	97..98	13.91081	19.15685
46..47	5325741.7	63890087.2	98..99	8.25345	10.903404
47..48	5019623.3	58870463.9	99..100	5.151252	5.7521519
48..49	4735333.4	54135130.5	100..101	3.1825912	2.5693607
49..50	4471315.2	49663815.3	101..102	1.7166079	.8529528
50..51	4224229.8	45439585.5	102..103	.7142613	.1386915
51..52	3988334.2	41451251.3			

TABLE XXVII. 561

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Two Years.

Ages	D.	N.	Ages	D.	N.
0 & 2	73324536.	953363955.0	52 & 54	3590397.3	35298169.5
1.. 3	56322680.7	897041274.3	53.. 55	3374832.9	31923336.6
2.. 4	48366962.4	848674311.9	54.. 56	3165850.0	28757486.6
3.. 5	42648566.7	806025745.2	55.. 57	2964296.2	25793190.4
4.. 6	39126132.2	766899613.0	56.. 58	2767313.3	23025877.1
5.. 7	36442289.3	730457324.7	57.. 59	2571865.1	20454012.0
6.. 8	34445347.6	696011977.1	58.. 60	2375653.2	18078358.8
7.. 9	32814011.1	663197966.0	59.. 61	2175258.0	15903100.8
8..10	31417549.7	631780416.3	60.. 62	1978750.5	13924350.3
9..11	30165771.0	601614645.3	61.. 63	1787322.4	12137027.9
10..12	26997849.8	572616795.5	62.. ■	1609169.5	10527858.4
11..13	27886733.3	544730062.2	63.. 65	1444048.0	9083810.4
12..14	26804360.4	517925701.8	64.. 66	1292962.8	7790847.6
13..15	25750474.4	492175227.4	65.. 67	1154148.5	6636699.1
14..16	24716941.5	467458285.9	66.. 68	1026798.4	5609900.7
15..17	23704362.9	443753923.0	67.. 69	910184.5	4699716.2
16..18	22713337.0	421040586.0	68.. 70	802979.4	3896736.8
17..19	21751351.8	399289234.2	69.. 71	704987.6	3191749.2
18..20	20824763.7	378464470.5	70.. 72	612539.5	2579209.7
19..21	19935687.4	358528783.1	71.. 73	525561.6	2053648.1
20..22	19085843.6	339442939.5	72.. 74	442712.1	1610936.0
21..23	18270423.3	321172516.2	73.. 75	364419.0	1246517.0
22..24	17491001.7	303681514.5	74.. 76	295010.4	951506.6
23..25	16743168.4	286938346.1	75.. 77	233758.8	717747.8
24..26	16022951.0	270915395.1	76.. 78	183218.8	534529.0
25..27	15332110.0	255583285.1	77.. 79	142201.5	392327.47
26..28	14661882.9	240921402.2	78.. 80	108636.50	283690.97
27..29	14007042.8	226914359.4	79.. 81	82553.59	201137.378
28..30	13360819.6	213553539.8	80.. 82	61203.816	139933.562
29..31	12728922.7	200824617.1	81.. 83	44846.016	95087.546
30..32	12111834.5	188712782.6	82.. 84	32023.352	63064.194
31..33	11522344.4	177190438.2	83.. 85	22474.185	40590.009
32..34	10961278.9	166229159.3	84.. 86	15279.896	25310.113
33..35	10427256.0	155801903.3	85.. 87	10064.986	15245.127
34..36	9918998.8	145882904.5	86.. 88	6316.526	8928.601
35..37	9431733.4	136451171.1	87.. 89	3858.845	5069.756
36..38	8964715.1	127486456.0	88.. 90	2303.700	2766.056
37..39	8515600.5	118970855.5	89.. 91	1290.270	1475.7861
38..40	8080700.3	110890155.2	90.. 92	701.9802	773.8059
39..41	7656844.7	103233310.5	91.. 93	362.8450	410.96088
40..42	7244352.2	95988958.3	92.. 94	186.38979	224.57109
41..43	6842111.5	89146846.8	93.. 95	97.71892	126.85217
42..44	6455788.6	82691058.2	94.. 96	53.87835	72.97382
43..45	6086256.6	76604801.6	95.. 97	30.70315	42.27067
44..46	5736594.2	70868207.4	96.. 98	17.77493	24.49574
45..47	5405793.7	65462413.7	97.. 99	10.61158	13.884157
46..48	5095114.5	60367299.2	98..100	6.556138	7.328019
47..49	4805509.7	55561789.5	99..101	3.889833	3.4381856
48..50	4534503.4	51027286.1	100..102	2.2070673	1.2311183
49..51	4282833.0	46744453.1	101..103	.9999658	.2311525
50..52	4042578.5	42701874.6			
51..53	3813307.8	38888566.8			

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 3	66567404.	913973739.3	51 & 54	3642456.4	36401750.4
1 .. 4	52607387.5	861366351.8	52 .. 55	3426926.1	32974824.3
2 .. 5	45609458.4	815756893.4	53 .. 56	3217811.8	29757012.5
3 .. 6	40669260.7	775087632.7	54 .. 57	3015241.7	26741770.8
4 .. 7	37519954.9	737567677.8	55 .. 58	2817816.8	23923954.0
5 .. 8	35069656.5	702498021.3	56 .. 59	2621676.9	21302277.1
6 .. 9	33222071.2	669275950.1	57 .. 60	2426356.7	18875920.4
7 ..10	31696346.8	637579603.3	58 .. 61	2229218.7	16646701.7
8 ..11	30365544.3	607214059.0	59 .. 62	2036326.0	14610375.7
9 ..12	29145981.2	578068077.8	60 .. 63	1849251.7	12761124.0
10 ..13	28012485.9	550055591.9	61 .. 64	1668891.2	11092232.8
11 ..14	26934194.0	523121397.9	62 .. 65	1500166.3	9592066.5
12 ..15	25879873.8	497241524.1	63 .. 66	1344385.1	8247681.4
13 ..16	24845695.8	472395828.3	64 .. 67	1201951.2	7045730.2
14 ..17	23836053.8	448559774.5	65 .. 68	1070793.9	5974936.3
15 ..18	22854819.3	425704955.2	66 .. 69	950585.9	5024350.4
16 ..19	21898249.5	403806705.7	67 .. 70	840277.8	4184072.6
17 ..20	20969754.7	382836951.0	68 .. 71	739329.5	3444743.1
18 ..21	20075461.5	362761489.5	69 .. 72	644174.3	2800568.8
19 ..22	19220604.0	343540885.5	70 .. 73	554182.5	2246386.3
20 ..23	18400343.6	325140541.9	71 .. 74	470394.5	1775991.8
21 ..24	17613336.7	307527205.2	72 .. 75	391061.5	1384930.3
22 ..25	16861097.7	290666107.5	73 .. 76	320008.6	1064921.7
23 ..26	16136608.1	274529499.4	74 .. 77	256925.4	807996.3
24 ..27	15441643.6	259087855.8	75 .. 78	202568.6	605427.73
25 ..28	14769912.5	244317943.3	76 .. 79	158525.0	446902.73
26 ..29	14111013.5	230206929.8	77 .. 80	121712.28	325190.45
27 ..30	13465418.9	216741510.9	78 .. 81	92634.14	232556.31
28 ..31	12840619.1	203900891.8	79 .. 82	69424.26	163132.052
29 ..32	12232051.1	191668840.7	80 .. 83	51061.235	112070.817
30 ..33	11639940.4	180028900.3	81 .. 84	36970.407	75100.410
31 ..34	11074302.2	168954598.1	82 .. 85	26153.748	48946.662
32 ..35	10533967.7	158420630.4	83 .. 86	17995.038	30951.624
33 ..36	10019708.6	148400921.8	84 .. 87	11964.893	18986.731 -
34 ..37	9528478.2	138872443.6	85 .. 88	7659.003	11327.728
35 ..38	9057622.4	129814821.2	86 .. 89	4784.445	6543.283
36 ..39	8606416.3	121208404.9	87 .. 90	2939.204	3604.079
37 ..40	8169379.6	113039025.3	88 .. 91	1653.826	1950.2528
38 ..41	7743312.0	105295713.3	89 .. 92	894.7776	1055.4752
39 ..42	7331427.1	97964286.2	90 .. 93	490.7047	564.7705
40 ..43	6932265.0	91032021.2	91 .. 94	260.9457	303.82479
41 ..44	6545960.5	84486060.7	92 .. 95	135.72072	168.10407
42 ..45	6175006.6	78311054.1	93 .. 96	72.73577	95.36830
43 ..46	5821483.3	72489570.8	94 .. 97	40.93754	54.43076
44 ..47	5486989.1	67002581.7	95 .. 98	23.18469	31.24607
45 ..48	5171699.9	61830881.8	96 .. 99	13.55924	17.686828
46 ..49	4877780.8	56953101.0	97 ..100	8.429320	9.257508
47 ..50	4601703.5	52351397.5	98 ..101	4.950697	4.306811
48 ..51	4343357.5	48008040.0	99 ..102	2.697527	1.609263
49 ..52	4098661.6	43909378.4	100 ..103	1.2856703	.323613
50 ..53	3865171.6	40044206.8			

TABLE XXVII.

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Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	62176324.	877502453.4	51 & 55	3476614.9	33990384.6
1.. 5	49608128.0	827894325.4	52.. 56	3267481.2	30722903.4
2.. 6	43492738.3	784401587.1	53.. 57	3064731.5	27658171.9
3.. 7	36999735.9	745401851.2	54.. 58	2866244.7	24791927.2
4.. 8	36106731.9	709295119.3	55.. 59	2669522.4	22122404.8
5.. 9	33824208.9	675470910.4	56.. 60	2473350.6	19649054.2
6..10	32090508.2	643380402.2	57.. 61	2276797.2	17372257.0
7..11	30635006.1	612745396.1	58.. 62	2086840.3	15285416.7
8..12	29339000.9	583406395.2	59.. 63	1903059.2	13382357.5
9..13	28155583.7	555250811.5	60.. 64	1726717.0	11655640.5
10..14	27055651.3	528195160.2	61.. 65	1555842.5	10099798.0
11..15	26005229.4	502189930.8	62.. 66	1396630.2	8703167.8
12..16	24970548.6	477219382.2	63.. 67	1249753.9	7453413.9
13..17	23960219.4	453259162.8	64.. 68	1115144.3	6338269.6
14..18	22981790.5	430277372.3	65.. 69	991316.0	5346953.6
15..19	22034654.6	408242717.7	66.. 70	877576.3	4469377.3
16..20	21111374.0	387131343.7	67.. 71	773671.5	3695705.8
17..21	20215235.6	366916108.1	68.. 72	675553.7	3020152.1
18..22	19355364.5	347560743.6	69.. 73	582803.4	2437348.7
19..23	18530264.0	329030479.6	70.. 74	496011.0	1941337.7
20..24	17738584.5	311291895.1	71.. 75	415514.4	1525823.3
21..25	16979027.1	294312868.0	72.. 76	343404.3	1182419.0
22..26	16250265.2	278062602.8	73.. 77	278696.3	903722.7
23..27	15551177.3	262511425.5	74.. 78	222644.0	681078.7
24..28	14875429.8	247635995.7	75.. 79	175266.7	505811.97
25..29	14214984.3	233421011.4	76.. 80	135683.67	370128.30
26..30	13565369.3	219855642.1	77.. 81	103783.83	266344.47
27..31	12941145.9	206914496.2	78.. 82	77901.60	188442.87
28..32	12339387.5	194575108.7	79.. 83	57919.40	130523.473
29..33	11753473.3	182819635.4	80.. 84	42094.143	88429.330
30..34	11187325.5	171632309.9	81.. 85	30194.050	58235.280
31..35	10642584.9	160989725.0	82.. 86	20941.256	37294.024
32..36	10122249.4	150867475.6	83.. 87	14090.980	23203.044
33..37	9625223.0	141242252.6	84.. 88	9104.748	14098.296
34..38	9150329.7	132091722.9	85.. 89	5801.304	8296.992
35..39	8695610.3	123396112.6	86.. 90	3644.216	4652.776
36..40	8256503.0	115139609.6	87.. 91	2110.053	2542.7231
37..41	7828288.7	107311320.9	88.. 92	1146.8973	1395.8258
38..42	7414219.7	99697101.2	89.. 93	625.4757	770.3501
39..43	7015583.9	92881512.3	90.. 94	352.8980	417.4521
40..44	6632211.9	86249300.4	91.. 95	190.0090	227.44310
41..45	6261256.8	79988013.6	92.. 96	101.02190	126.42120
42..46	5906372.5	74081671.1	93.. 97	55.26567	71.15553
43..47	5568184.6	68513486.5	94.. 98	30.91292	40.24261
44..48	5249379.4	63264107.1	95.. 99	17.68396	22.556646
45..49	4951099.4	58313007.7	96..100	10.770798	11.785848
46..50	4670909.6	53642098.1	97..101	6.365182	5.420666
47..51	4407725.0	49234373.1	98..102	3.433216	1.987450
48..52	4156583.6	45077789.5	99..103	1.571375	.4160745
49..53	3918793.6	41158995.9			
50..54	3691996.4	37466999.5			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	58631519.	843335982.3	51.. 56	3314858.1	31654927.5
1.. 6	47305831.0	796030151.3	52.. 57	3112037.9	28542889.6
2.. 7	41707306.2	754322815.1	53.. 58	2913289.1	25629600.5
3.. 8	37530775.6	716792069.5	54.. 59	2715401.8	22914198.7
4.. 9	34824453.9	681967615.6	55.. 60	2518459.2	20395709.5
5..10	32672136.6	649295479.0	56.. 61	2320894.1	18074815.4
6..11	31015969.1	618279509.9	57.. 62	2131379.8	15943435.6
7..12	29599353.1	588650156.8	58.. 63	1950267.6	13993168.0
8..13	28342044.6	560338112.2	59.. 64	1776959.1	12216208.9
9..14	27193861.2	533144251.0	60.. 65	1609751.2	10606457.7
10..15	26122497.6	507021753.4	61.. 66	1418464.0	9157993.7
11..16	25091499.6	481930253.8	62.. 67	1298321.4	7859672.3
12..17	24080622.6	457849631.2	63.. 68	1159494.5	6700177.8
13..18	23101506.2	434748125.0	64.. 69	1032374.5	5667803.3
14..19	22157069.3	412591055.7	65.. 70	915178.2	4752625.1
15..20	21242877.5	391348178.2	66.. 71	808013.5	3944611.6
16..21	20351759.2	370996419.0	67.. 72	706933.4	3237678.2
17..22	19490124.9	351506294.1	68.. 73	611193.3	2626484.9
18..23	18660184.3	332846109.8	69.. 74	521627.6	2104857.3
19..24	17863832.4	314982277.4	70.. 75	438142.3	1666715.0
20..25	17099764.4	297882513.0	71.. 76	364877.0	1301838.0
21..26	16363922.3	281518590.7	72.. 77	299071.7	1002766.3
22..27	15660711.0	265857879.7	73.. 78	241510.1	761256.2
23..28	14980947.1	250876932.6	74.. 79	192636.5	568619.65
24..29	14316537.2	236560395.4	75.. 80	150013.29	418606.36
25..30	13665319.7	222895075.7	76.. 81	115697.22	302909.14
26..31	13037204.7	209857871.0	77.. 82	87278.05	215631.09
27..32	12435990.2	197421880.8	78.. 83	64991.89	150639.20
28..33	11858627.7	185563253.1	79.. 84	47747.92	102891.276
29..34	11298366.0	174264887.1	80.. 85	34378.650	68512.626
30..35	10751202.1	163513685.0	81.. 86	24176.320	44336.306
31..36	10226621.5	153287063.5	82.. 87	16398.011	27938.295
32..37	9723726.6	143563336.9	83.. 88	10722.605	17215.690
33..38	9243437.0	134319899.9	84.. 89	6896.381	10319.309
34..39	8784804.4	125535095.5	85.. 90	4418.737	5900.572
35..40	8342070.7	117193024.8	86.. 91	2616.182	3284.3899
36..41	7911774.6	109281250.2	87.. 92	1463.2828	1821.1071
37..42	7495384.9	101785665.3	88.. 93	801.7147	1019.3924
38..43	7094814.7	94690850.6	89.. 94	449.8207	569.5717
39..44	6711929.2	87978921.4	90.. 95	256.9646	312.6071
40..45	6343756.9	81635164.5	91.. 96	141.4307	171.17636
41..46	5988870.5	75646294.0	92.. 97	76.75788	94.41848
42..47	5649380.3	69996913.7	93.. 98	41.73244	52.68604
43..48	5327058.7	64669855.0	94.. 99	23.53128	29.101759
44..49	5025465.3	59644369.7	95..100	14.048867	15.055892
45..50	4741118.7	54903271.0	96..101	8.133289	6.922603
46..51	4474013.7	50429257.3	97..102	4.414135	2.508468
47..52	4218183.0	46211074.3	98..103	1.999932	.508536
48..53	3974173.5	42236900.8			
49..54	3743215.8	38493685.0			
50..55	3523899.4	34969785.6			

TABLE XXVII.   **565**

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)
Difference of Age Six Years.

Ages.	D.	N.	Ages.	D.	N
0 & 6	55910449.	810839873.2	51 & 57	3157161.1	29395780.8
1.. 7	45363866.6	765476006.6	52.. 58	2958257.9	26437522.9
2.. 8	40136362.8	725339643.8	53.. 59	2759970.3	23677552.6
3.. 9	36197924.9	689141718.9	54.. 60	2561772.9	21115779.7
4..10	33638312.8	655503406.1	55.. 61	2363250.4	18752529.3
5..11	31578121.9	623925284.2	56.. 62	2172660.4	16579868.9
6..12	29967437.3	593957846.9	57.. 63	1991892.4	14587976.5
7..13	28593549.9	565364297.0	58.. 64	1821039.5	12766937.0
8..14	27373953.1	537990343.9	59.. 65	1656589.9	11110347.1
9..15	26255940.7	511734403.2	60.. 66	1498652.0	9611695.1
10..16	25204647.5	486529755.7	61.. 67	1346506.5	8265188.6
11..17	24197263.1	462332492.6	62.. 68	1204554.4	7060634.2
12..18	23217594.2	439114898.4	63.. 69	1073432.9	5987201.3
13..19	22272488.9	416842409.5	64.. 70	953083.2	5034118.1
14..20	21360893.5	395481516.0	65.. 71	842634.6	4191483.5
15..21	20478531.0	375002985.0	66.. 72	738312.9	3453170.6
16..22	19621751.6	355381233.4	67.. 73	639583.3	2813587.3
17..23	18790104.6	336591128.8	68.. 74	547037.6	2266549.7
18..24	17989080.1	318602048.7	69.. 75	460770.2	1805779.5
19..25	17220501.6	301381547.1	70.. 76	384747.4	1421032.1
20..26	16480285.6	284901261.5	71.. 77	317772.4	1103259.7
21..27	15770244.7	269131016.8	72.. 78	259166.7	844093.0
22..28	15086464.6	254044552.2	73.. 79	208959.8	635133.21
23..29	14418090.1	239626462.1	74.. 80	164880.29	470252.92
24..30	13762945.9	225863516.2	75.. 81	127916.06	342336.86
25..31	13133263.7	212730252.5	76.. 82	97296.72	245040.14
26..32	12528299.4	200201953.1	77.. 83	72814.49	172225.65
27..33	11951466.6	188250486.5	78.. 84	53578.38	118647.27
28..34	11397509.2	176852977.3	79.. 85	38996.13	79651.141
29..35	10857913.8	165995063.5	80.. 86	27526.921	52124.220
30..36	10330993.5	155664070.0	81.. 87	18931.219	33193.001
31..37	9823989.4	145840080.6	82.. 88	12478.151	20714.850
32..38	9338033.7	136502046.9	83.. 89	8121.826	12593.024
33..39	8873998.4	127628048.5	84.. 90	5252.835	7340.189
34..40	8427638.4	119200410.1	85.. 91	3172.209	4167.9802
35..41	7993769.6	111206640.5	86.. 92	1814.2729	2353.7073
36..42	7575522.6	103631117.9	87.. 93	1022.8774	1330.8299
37..43	7172674.7	96458443.2	88.. 94	576.5657	754.2642
38..44	6787725.8	89670717.4	89.. 95	327.5393	426.7249
39..45	6420006.9	83250710.5	90.. 96	191.2681	235.4568
40..46	6067781.5	77182929.0	91.. 97	107.4610	127.99578
41..47	5728288.5	71454640.5	92.. 98	57.96173	70.03405
42..48	5404738.3	66049902.2	93.. 99	31.83474	38.199310
43..49	5099831.4	60950070.8	94..100	18.731822	19.467488
44..50	4812330.8	56137740.0	95..101	10.608637	8.858851
45..51	4541263.2	51596476.8	96..102	5.640283	3.218568
46..52	4281621.1	47314855.7	97..103	2.571341	.647227
47..53	4033069.8	43281785.9			
48..54	3796114.6	39485671.3			
49..55	3572786.8	35912884.5			
50..56	3359942.6	32552941.9			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
('Carlisle 3 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	53615254.	779698347.8	51 & 58	3001151.2	27215629.2
1.. 8	43655195.6	736043152.2	52.. 59	2802572.5	24413056.7
2.. 9	38710978.6	697332173.6	53.. 60	2603819.8	21809236.9
3..10	34965002.5	662367171.1	54.. 61	2403866.1	19405370.8
4..11	32511946.0	629855225.1	55.. 62	2212311.5	17193059.3
5..12	30510585.8	599344639.3	56.. 63	2030471.4	15162587.9
6..13	28949126.4	570395512.9	57.. 64	1859905.9	13302682.0
7..14	27616867.6	542778645.3	58.. 65	1697684.4	11604997.6
8..15	26429821.1	516348824.2	59.. 66	1542258.1	10062739.5
9..16	25333401.8	491015422.4	60.. 67	1393162.0	8669577.5
10..17	24306378.4	466709044.0	61.. 68	1249259.6	7420317.9
11..18	23330054.4	443378989.6	62.. 69	1115148.3	6305169.6
12..19	22384411.0	420994578.6	63.. 70	990938.2	5314181.4
13..20	21472165.6	399522413.0	64.. 71	877535.0	4436646.4
14..21	20592300.6	378930112.4	65.. 72	769947.6	3666698.8
15..22	19743976.1	359186136.3	66.. 73	667973.4	2998725.4
16..23	18917003.5	340269132.8	67.. 74	572447.6	2426277.8
17..24	18114327.9	322154804.9	68.. 75	483215.6	1943062.2
18..25	17341238.8	304813566.1	69.. 76	404617.7	1538444.5
19..26	16596648.9	288216917.2	70.. 77	335077.6	1203366.9
20..27	15882386.4	272334530.8	71.. 78	275372.3	927994.6
21..28	15191981.9	257142548.9	72.. 79	224236.9	703757.68
22..29	14519643.0	242622905.9	73.. 80	178851.66	524906.02
23..30	13860571.8	228762334.1	74.. 81	140593.11	384312.91
24..31	13227088.9	215535245.2	75.. 82	107572.28	276740.63
25..32	12620608.7	202914636.5	76.. 83	81172.90	195567.73
26..33	12040179.4	190874457.1	77.. 84	60027.22	135540.51
27..34	11486738.2	179387718.9	78.. 85	43757.92	91782.59
28..35	10953192.1	168434526.8	79.. 86	31224.13	60558.455
29..36	10433534.3	158000992.5	80.. 87	21554.902	39003.553
30..37	9924252.1	148076740.4	81.. 88	14405.809	24597.744
31..38	9434319.4	138642421.0	82.. 89	9451.563	15146.181
32..39	8964814.2	129677606.8	83.. 90	6186.231	8959.950
33..40	8513206.1	121164400.7	84.. 91	3771.008	5188.9415
34..41	8075764.6	113088636.1	85.. 92	2199.8677	2989.0738
35..42	7654032.8	105434603.3	86.. 93	1268.2296	1720.8442
36..43	7249168.6	98185434.7	87.. 94	735.6183	985.2259
37..44	6862215.8	91323218.9	88.. 95	419.8294	565.3965
38..45	6492507.0	84830711.9	89.. 96	243.7995	321.5970
39..46	6140714.4	78689997.5	90.. 97	145.3282	176.2688
40..47	5803766.1	72886231.4	91.. 98	81.1464	95.12236
41..48	5480229.5	67406001.9	92.. 99	44.21491	50.907452
42..49	5174197.4	62231804.5	93..100	25.287960	25.619492
43..50	4883542.7	57348261.8	94..101	14.144850	11.474642
44..51	4609473.4	52738788.4	95..102	7.356891	4.117751
45..52	4345978.8	48392809.6	96..103	3.285602	.832149
46..53	4093724.1	44299085.5			
47..54	3852372.0	40446713.5			
48..55	3623277.1	36823436.4			
49..56	3406555.4	33416881.0			
50..57	3200100.6	30216780.4			

TABLE XXVII. 567

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 8	51595787.	749711364.0	51 & 59	2843208.6	25120593.4
1.. 9	42104845.0	707606519.0	52.. 60	2644011.7	22476581.7
2..10	37392460.2	670214058.8	53.. 61	2443321.2	20033260.5
3..11	33794212.0	636419846.8	54.. 62	2250333.0	17782927.5
4..12	31412840.9	605007005.9	55.. 63	2067527.4	15715400.1
5..13	29473818.4	575533187.5	56.. 64	1895928.6	13819471.5
6..14	27960298.5	547572889.0	57.. 65	1733918.1	12085553.4
7..15	26664357.4	520908531.6	58.. 66	1580516.3	10505037.1
8..16	25501172.7	495407358.9	59.. 67	1433698.6	9071338.5
9..17	24430544.1	470976814.8	60.. 68	1292545.5	7778793.0
10..18	23435259.1	447541555.7	61.. 69	1156535.3	6622257.7
11..19	22492835.5	425048720.2	62.. 70	1029499.7	5592758.0
12..20	21580066.0	403468654.2	63.. 71	912435.4	4680322.6
13..21	20699569.1	382769085.1	64.. 72	801837.4	3878485.2
14..22	19853664.8	362915420.3	65.. 73	696594.2	3181891.0
15..23	19034838.3	343880582.0	66.. 74	597857.5	2584033.5
16..24	18236663.0	325643919.0	67.. 75	505661.0	2078372.5
17..25	17461976.1	308181942.9	68.. 76	424327.8	1654044.7
18..26	16713012.0	291468930.9	69.. 77	352382.6	1301662.1
19..27	15994528.0	275474402.9	70.. 78	290368.4	1011293.7
20..28	15300011.5	260174391.4	71.. 79	238258.1	773035.62
21..29	14621195.8	245553195.6	72.. 80	191927.46	581108.16
22..30	13958197.9	231594997.7	73.. 81	152506.48	428601.68
23..31	13320913.7	218274084.0	74.. 82	118233.18	310368.50
24..32	12710771.2	205563312.8	75.. 83	89745.61	220622.89
25..33	12128892.1	193434420.7	76.. 84	66917.76	153705.13
26..34	11572001.5	181862419.2	77.. 85	49024.75	104680.38
27..35	11038942.6	170823476.6	78.. 86	35036.88	69643.50
28..36	10525088.7	160298387.9	79.. 87	24450.00	45193.500
29..37	10022755.8	150275632.1	80.. 88	16402.315	28791.185
30..38	9530605.3	140745026.8	81.. 89	10911.665	17879.520
31..39	9057251.7	131687775.1	82.. 90	7199.066	10680.454
32..40	8600329.5	123087445.6	83.. 91	4441.093	6239.3610
33..41	8157759.6	114929686.0	84.. 92	2615.1237	3624.2373
34..42	7732543.0	107197143.0	85.. 93	1537.7717	2086.4656
35..43	7324296.6	99872846.4	86.. 94	912.0673	1174.3983
36..44	6935398.7	92937447.7	87.. 95	435.6443	738.7540
37..45	6563757.2	86373690.5	88.. 96	312.4943	426.2597
38..46	6210060.5	80163630.0	89.. 97	185.2422	241.0175
39..47	5873525.7	74290104.3	90.. 98	109.7408	131.2767
40..48	5552438.6	68737665.7	91.. 99	61.9009	69.375772
41..49	5246468.7	63491197.0	92..100	35.122167	34.253605
42..50	4954754.9	58536442.1	93..101	19.095547	15.158058
43..51	4677683.6	53858758.5	94..102	9.809188	5.348870
44..52	4411255.8	49447502.7	95..103	4.285568	1.063302
45..53	4155257.3	45292245.4			
46..54	3910308.6	41381936.8			
47..55	3676973.1	37704963.7			
48..56	3454696.6	34250267.1			
49..57	3244496.0	31005771.1			
50..58	3041969.1	27963802.0			

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	49763438.	720746699.3	51.. 60	2682348.7	23118155.9
1..10	40670729.4	680075969.9	52.. 61	2481035.7	20637120.2
2..11	36140387.0	643935582.9	53.. 62	2287268.3	18349851.9
3..12	32651758.3	611283824.6	54.. 63	2103060.7	16246791.2
4..13	30345414.2	580938410.4	55.. 64	1930529.2	14316262.0
5..14	28467069.4	552471342.0	56.. 65	1767500.7	12548761.3
6..15	26995943.4	525475398.6	57.. 66	1614249.5	10934511.8
7..16	25727468.3	499747930.3	58.. 67	1469263.8	9465248.0
8..17	24592335.8	475155594.5	59.. 68	1330154.6	8135093.4
9..18	23554974.8	451600619.7	60.. 69	1196608.4	6938485.0
10..19	22594264.8	429006354.9	61.. 70	1067707.9	5870777.1
11..20	21684594.5	407321760.4	62.. 71	947894.2	4922882.9
12..21	20803587.1	386518173.3	63.. 72	833727.2	4089155.7
13..22	19957085.6	366561087.7	64.. 73	725445.8	3363709.9
14..23	19140587.4	347420500.3	65.. 74	623474.1	2740235.8
15..24	18350259.9	329070240.4	66.. 75	528106.5	2212129.3
16..25	17579905.5	311490334.9	67.. 76	444037.8	1768091.5
17..26	16829375.4	294660959.5	68.. 77	369548.2	1398543.3
18..27	16106669.6	278554289.9	69.. 78	305364.5	1093178.8
19..28	15408041.1	263146248.8	70.. 79	251233.2	841945.57
20..29	14725166.7	248421082.1	71.. 80	203928.52	638017.05
21..30	14055824.0	234365258.1	72.. 81	163656.18	474360.87
22..31	13414738.7	220950519.4	73.. 82	128251.84	346109.03
23..32	12800933.8	208149585.6	74.. 83	98639.81	247469.22
24..33	12215541.8	195934043.8	75.. 84	73984.98	173484.24
25..34	11657264.7	184276779.1	76.. 85	54652.31	118831.93
26..35	11120892.0	173155897.1	77.. 86	39254.02	79577.91
27..36	10607487.5	162548409.6	78.. 87	27435.57	52142.34
28..37	10110705.6	152437704.0	79.. 88	18605.35	33536.988
29..38	9625201.9	142812502.1	80.. 89	12423.916	21113.072
30..39	9149689.1	133662813.0	81.. 90	8311.196	12801.876
31..40	8689008.7	124973804.3	82.. 91	5168.206	7633.6699
32..41	8241245.5	116732558.8	83.. 92	3079.8149	4553.8550
33..42	7811053.2	108921505.6	84.. 93	1828.0477	2725.8073
34..43	7399424.5	101522081.1	85.. 94	1105.9128	1619.8945
35..44	7007274.9	94514806.2	86.. 95	664.1267	955.7678
36..45	6633757.2	87881049.0	87.. 96	398.6996	557.0682
37..46	6278211.0	81602838.0	88.. 97	237.4377	319.6305
38..47	5939854.4	75662983.6	89.. 98	139.8809	179.7496
39..48	5619177.3	70043806.3	90.. 99	83.7136	96.03604
40..49	5315597.6	64728208.7	91..100	49.17104	46.865002
41..50	5023960.9	59704247.8	92..101	26.521593	20.343409
42..51	4745893.9	54958353.9	93..102	13.242404	7.101005
43..52	4476532.8	50481821.1	94..103	5.714090	1.386915
44..53	4217669.6	46264151.5			
45..54	3969085.0	42295066.5			
46..55	3732271.9	38562794.6			
47..56	3505894.2	35056900.4			
48..57	3290346.9	31766553.5			
49..58	3084170.6	28682382.9			
50..59	2881878.3	25800504.6			

TABLE XXVII.   569

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Ten Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 10	48068467.	592707464.5	51 & 61	2517009.7	21216735.1
1..11	39308884.8	653398579.7	52.. 62	2322574.0	18894161.1
2..12	34918618.2	618479961.5	53.. 63	2137578.8	16756592.3
3..13	31542232.6	586937728.9	54.. 64	1963708.0	14792974.3
4..14	29308892.8	557628836.1	55.. 65	1799757.6	12993116.7
5..15	27485234.6	530143601.5	56.. 66	1645514.3	11347602.4
6..16	26047403.4	504096198.1	57.. 67	1500622.4	9846980.0
7..17	24810566.4	479285631.7	58.. 68	1363151.2	8483828.8
8..18	23710968.1	455574663.6	59.. 69	1231425.9	7252402.9
9..19	22709684.5	432864979.1	60.. 70	1104703.1	6147699.8
10..20	21782379.1	411082600.0	61.. 71	983073.8	5164626.0
11..21	20904334.5	390178245.5	62.. 72	866127.3	4298498.7
12..22	20057372.6	370120872.9	63.. 73	754297.5	3544201.2
13..23	19240293.6	350880579.3	64.. 74	649297.1	2894904.1
14..24	18452205.8	332428373.5	65.. 75	550734.3	2344169.8
15..25	17689411.4	314738962.1	66 . 76	463748.0	1880421.8
16..26	16943032.5	297795929.6	67.. 77	386713.8	1493708.0
17..27	16218811.3	281577118.3	68.. 78	320239.5	1173468.5
18..28	15516070.8	266061047.5	69.. 79	264208.2	909260.34
19..29	14829137.6	251231909.9.	70.. 80	215033.98	694226.36
20..30	14155774.4	237076135.5	71.. 81	173889.46	520336.90
21..31	13508563.6	223567571.9	72.. 82	137628.31	382708.59
22..32	12891096.3	210676475.6	73.. 83	106998.19	275710.40
23..33	12302191.4	198374284.2	74.. 84	81317.22	194393.18
24..34	11740545.0	186633739.2	75.. 85	60424.17	133969.01
25..35	11202821.2	175430918.0	76.. 86	43760.00	90209.01
26..36	10686224.3	164744693.7	77.. 87	30737.78	59471.23
27..37	10189860.5	154554833.2	78.. 88	20877.23	38594.00
28..38	9709663.1	144845170.1	79.. 89	14092.61	24501.387
29..39	9240504.9	135604665.2	80.. 90	9463.047	15038.340
30..40	8777687.8	126826977.4	81.. 91	5966.605	9071.7354
31..41	8326222.1	118500755.3	82.. 92	3584.0542	5487.6812
32..42	7890990.9	110609764.4	83.. 93	2152.8804	3334.8008
33..43	7474552.5	103135211.9	84.. 94	1314.6692	2020.1316
34..44	7079151.1	96056060.8	85.. 95	805.2762	1214.8554
35..45	6702507.3	89353553.5	86.. 96	494.3338	720.5216
36..46	6345165.8	83008387.7	87.. 97	302.9377	417.5839
37..47	6005039.6	77003348.1	88.. 98	179.2949	238.2890
38..48	5682633.7	71320714.4	89.. 99	106.7053	131.58367
39..49	5379489.4	65941225.0	90..100	66.49797	65.08570
40..50	5090158.0	60851067.0	91..101	37.13023	27.955470
41..51	4812182.7	56038884.3	92..102	18.392228	9.563243
42..52	4541809.9	51497074.4	93..103	7.714022	1.849220
43..53	4280082.0	47216992.4			
44..54	4028701.1	43188291.3			
45..55	3788372.1	39399919.2			
46..56	3558620.2	35841299.0			
47..57	3339106.9	32502190.1			
48..58	3127755.9	29374434.2			
49..59	2921658.9	26452575.3			
50..60	2718830.5	23733744.8			

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 11	46458911.	665537774.7	51 & 62	2356250.2	19416088.8
1..12	37980001.0	627557773.7	52.. 63	2170573.9	17245514.9
2..13	33732063.1	593825710.6	53.. 64	1995938.8	15249576.1
3..14	30464830.9	563360879.7	54.. 65	1830688.8	13418887.3
4..15	28298024.4	535062855.3	55.. 66	1675544.9	11743342.4
5..16	26519502.8	508543352.5	56.. 67	1529686.6	10213655.8
6..17	25119099.4	483424253.1	57.. 68	1392245.0	8821410.8
7..18	23921377.6	459502875.5	58.. 69	1261973.4	7559437.4
8..19	22860079.7	436642795.8	59.. 70	1136846.5	6422590.9
9..20	21893651.3	414749144.5	60.. 71	1017136.5	5405454.4
10..21	20998620.7	393750523.8	61.. 72	898272.3	4507182.1
11..22	20154525.5	373595998.3	62.. 73	783610.9	3723571.2
12..23	19336978.6	354259019.7	63.. 74	675120.2	3048451.0
13..24	18548326.0	335710693.7	64.. 75	573544.7	2474906.3
14..25	17787685.9	317923007.8	65.. 76	483618.3	1991288.0
15..26	17048571.3	300874436·5	66.. 77	403879.2	1587408.8
16..27	16328344.9	284546091.6	67.. 78	335114.9	1252293.9
17..28	15624100.4	268921991.2	68.. 79	277078.3	975215.55
18..29	14933103.3	253988882.9	69.. 80	226139.44	749076.11
19..30	14255724.9	239733158.0	70.. 81	183359.08	565717.03
20..31	13604622.6	226128535.4	71.. 82	146234.08	419482.95
21..32	12981258.8	213147276.6	72.. 83	114820.81	304662.14
22..33	12388841.2	200758435.4	73.. 84	88207.77	216454.37
23..34	11823825.3	188934610.1	74.. 85	66412.46	150041.91
24..35	11282855.0	177651755.1	75.. 86	48381.51	101660.40
25..36	10764961.0	166886794.1	76.. 87	34266.19	67394.21
26..37	10265497.2	156621296.9	77.. 88	23390.07	44004.14
27..38	9785678.2	146335618.7	78.. 89	15813.45	28190.69
28..39	9321590.4	137514023.3	79.. 90	10734.06	17456.627
29..40	8864811.3	128649217.0	80.. 91	6793.518	10663.1091
30..41	8411198.8	120238018.2	81.. 92	4137.7287	6525.3804
31..42	7972356.0	112265662.2	82.. 93	2505.3584	4020.0220
32..43	7551046.6	104714615.6	83.. 94	1548.2778	2471.7442
33..44	7151027.3	97563588.3	84.. 95	957.2834	1514.4608
34..45	6771257.3	90792331.0	85.. 96	599.3967	915.0641
35..46	6410925.0	84381406.0	86.. 97	375.6018	539.4623
36..47	6069081.1	78312324.9	87.. 98	228.7556	310.7067
37..48	5744996.1	72567328.8	88.. 99	136.7715	173.93520
38..49	5440239.1	67127089.7	89..100	84.76150	89.17370
39..50	5151340.3	61975749.4	90..101	50.21421	38.95949
40..51	4875389.4	57100160.0	91..102	25.74912	13.210366
41..52	4605248.2	52494911.8	92..103	10.713919	2.496447
42..53	4342494.5	48152417.3			
43..54	4088317.0	44064100.3			
44..55	3845273.8	40218826.5			
45..56	3612110.3	36606716.2			
46..57	3389326.6	33217389.6			
47..58	3174108.3	30043281.3			
48..59	2963150.3	27080131.0			
49..60	2756549.2	24323581.8			
50..61	2551242.8	21772339.0			

TABLE XXVII. 571

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twelve Years.

Ages.	D.	N.	Ages.	D.	N.
0 &12	44868312.	639220763.9	51 & 63	2202046.1	17713767.7
1..13	36669418.4	602531345.5	52.. 64	2026747.6	15687020.1
2..14	32579862.4	569951483.1	53.. 65	1860736.4	13826283.7
3..15	29414094.0	540537389.1	54.. 66	1704341.4	12121942.3
4..16	27303734.1	513233655.0	55.. 67	1557603.4	10564338.9
5..17	25574373.7	487659281.3	56.. 68	1419210.0	9145128.9
6..18	24218853.0	463440428.3	57.. 69	1288907.7	7856221.2
7..19	23062936.4	440377489.9	58.. 70	1163047.9	6691173.3
8..20	22038642.5	418338847.4	59.. 71	1046732.0	5644441.3
9..21	21105889.2	397232958.2	60.. 72	929396.6	4715044.7
10..22	20245410.4	376987547.8	61.. 73	812693.3	3902351.4
11..23	19430642.1	357556905.7	62.. 74	701356.6	3200994.8
12..24	18641533.8	338915371.9	63.. 75	596355.1	2604639.7
13..25	17880344.7	321035027.2	64.. 76	503649.0	2100990.7
14..26	17143285.6	303891741.6	65.. 77	421184.5	1679806.2
15..27	16430054.9	287461686.7	66.. 78	349989.9	1329816.3
16..28	15729617.7	271732069.0	67.. 79	289948.8	1039867.47
17..29	15037079.1	256694989.9	68.. 80	237155.33	802712.14
18..30	14355675.2	242339314.7	69.. 81	192828.68	609883.46
19..31	13700681.5	228638633.2	70.. 82	154197.64	455685.82
20..32	13073568.1	215565065.1	71.. 83	122000.45	333685.37
21..33	12475490.9	203089574.2	72.. 84	94656.60	239028.77
22..34	11907105.6	191182469.6	73.. 85	72040.04	166988.73
23..35	11362598.8	179819569.8	74.. 86	53176.34	113812.39
24..36	10841866.7	168977703.1	75.. 87	37685.05	75927.34
25..37	10341134.0	158636569.1	76.. 88	26075.03	49852.31
26..38	9858314.8	148776254.3	77.. 89	17716.79	32135.52
27..39	9394567.3	139383687.0	78.. 90	12044.79	20090.73
28..40	8942600.1	130441086.9	79.. 91	7705.97	12384.7634
29..41	8494684.6	121946402.3	80.. 92	4711.1775	7673.5859
30..42	8053721.1	113892681.2	81.. 93	2892.3930	4781.1929
31..43	7628906.4	106263774.8	82.. 94	1801.7679	2979.4250
32..44	7224210.4	99039564.4	83.. 95	1127.3868	1852.0382
33..45	6840007.4	92199557.0	84.. 96	712.5412	1139.4970
34..46	6476684.2	85722872.8	85.. 97	455.4301	684.0669
35..47	6131979.1	79590893.7	86.. 98	283.6260	400.4409
36..48	5806264.4	73784629.3	87.. 99	174.5015	225.93941
37..49	5499941.5	68284687.8	88..100	108.64457	117.29484
38..50	5209513.5	63075174.3	89..101	64.00544	53.28940
39..51	4934192.5	58140981.8	90..102	34.82262	18.46678
40..52	4665928.3	53475053.5	91..103	14.99949	3.467288
41..53	4403148.8	49071904.7			
42..54	4147933.2	44923971.5			
43..55	3902175.6	41021795.9			
44..56	3666364.5	37355431.4			
45..57	3440272.0	33915159.4			
46..58	3221844.4	30693315.0			
47..59	3007063.4	27686251.6			
48..60	2795504.4	24690747.2			
49..61	2586636.5	22304110.7			
50..62	2388296.9	19915813.8			

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &13	43362981.	613733409.1	51 & 64	2056134.5	16105446.0
1..14	35436202.2	578297206.9	52.. 65	1889458.2	14215987.8
2..15	31456177.9	546841029.0	53.. 66	1732315.2	12483672.6
3..16	28380589.1	518460439.9	54.. 67	1584372.9	10899299.7
4..17	26330655.7	492129784.2	55.. 68	1445110.5	9454189.2
5..18	24657810.6	467471973.6	56.. 69	1313871.4	8140317.8
6..19	23349738.7	444122234.9	57.. 70	1189913.5	6950404.3
7..20	22234211.8	421888023.1	58.. 71	1072697.9	5877706.4
8..21	21245663.3	400642359.8	59.. 72	956439.2	4921267.2
9..22	20348831.3	380293528.5	60.. 73	840852.4	4080414.8
10..23	19518262.7	360775265.8	61.. 74	727386.4	3353028.4
11..24	18731828.7	342043437.1	62.. 75	619530.6	2733497.8
12..25	17970195.7	324073241.4	63.. 76	523679.4	2209818.4
13..26	17232587.6	306840653.8	64.. 77	438629.2	1771189.2
14..27	16521333.0	290319320.8	65.. 78	364986.2	1406203.0
15..28	15827598.1	274491722.7	66.. 79	302819.0	1103383.96
16..29	15138631.9	259353090.8	67.. 80	248171.24	855212.72
17..30	14455625.8	244897465.0	68.. 81	202221.91	652990.81
18..31	13796740.4	231100724.6	69.. 82	162161.20	490829.61
19..32	13165877.4	217934847.2	70.. 83	128644.31	362185.30
20..33	12564203.6	205370643.6	71.. 84	100575.41	261609.89
21..34	11990385.9	193380257.7	72.. 85	77306.86	184303.03
22..35	11442922.5	181937335.2	73.. 86	57682.32	126620.71
23..36	10918772.3	171018562.9	74.. 87	41639.64	84981.07
24..37	10415011.9	160603551.0	75.. 88	28828.82	56152.25
25..38	9930951.5	150672599.5	76.. 89	19750.51	36401.74
26..39	9464301.0	141208298.5	77.. 90	13494.52	22907.22
27..40	9012610.0	132195688.5	78.. 91	8646.94	14260.276
28..41	8569225.5	123626463.0	79.. 92	5343.949	8916.3273
29..42	8133658.7	115492804.3	80.. 93	3293.2504	5623.0769
30..43	7706766.3	107786038.0	81.. 94	2080.1100	3542.9669
31..44	7298700.2	100487337.8	82.. 95	1311.9669	2231.0000
32..45	6910007.5	93577330.3	83.. 96	839.1553	1391.8447
33..46	6542443.4	87034886.9	84.. 97	541.3989	850.4458
34..47	6194877.0	80840009.9	85.. 98	343.9062	506.5396
35..48	5866438.6	74973571.3	86.. 99	216.3582	290.18141
36..49	5558596.3	69414975.0	87..100	138.61548	151.56593
37..50	5266683.8	64148291.2	88..101	82.04013	69.52580
38..51	4989913.5	59158377.7	89..102	44.38658	25.13922
39..52	4722011.3	54436366.4	90..103	20.28502	4.85420
40..53	4461165.9	49975200.5			
41..54	4205869.9	45769330.6			
42..55	3959077.3	41810253.3			
43..56	3720618.7	38089634.6			
44..57	3491945.2	34597689.4			
45..58	3270272.4	31327417.0			
46..59	3052287.3	28275129.7			
47..60	2836933.1	25438196.6			
48..61	2623190.6	22815006.0			
49..62	2421430.0	20393576.0			
50..63	2231995.5	18161580.5			

TABLE XXVII. 573

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fourteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &14	41881813.	589052739.8	51 & 65	1916854.5	14588311.3
1..15	34214001.9	554838737.9	52.. 66	1759054.7	12829256.6
2..16	30350921.5	524487816.4	53.. 67	1610377.5	11218879.1
3..17	27369132.6	497118683.8	54.. 68	1469946.8	9748932.3
4..18	25386988.1	471731695.7	55.. 69	1337849.5	8411082.8
5..19	23772943.9	447958751.8	56.. 70	1212959.8	7198123.0
6..20	22510706.4	425448045.4	57.. 71	1095592.6	6102530.4
7..21	21434195.7	404013849.7	58.. 72	980165.2	5122365.2
8..22	20483591.7	383530258.0	59.. 73	865318.6	4257046.6
9..23	19617969.0	363912289.0	60.. 74	752589.7	3504456.9
10..24	18816298.1	345095990.9	61.. 75	642523.5	2861933.4
11..25	18057238.8	327038752.1	62.. 76	544030.6	2317902.8
12..26	17319183.6	309719568.5	63.. 77	456073.8	1861829.0
13..27	16607395.1	293112173.4	64.. 78	380103.2	1481725.8
14..28	15915529.2	277196644.2	65.. 79	315794.2	1165931.64
15..29	15232931.1	261963713.1	66.. 80	259187.14	906744.50
16..30	14553251.8	247410461.3	67.. 81	211615.16	695129.34
17..31	13892799.3	233517662.0	68.. 82	170060.55	525068.79
18..32	13258186.6	220259475.4	69.. 83	135288.17	369780.62
19..33	12652916.5	207606558.9	70.. 84	106052.51	283728.11
20..34	12075649.2	195530909.7	71.. 85	82140.81	201587.30
21..35	11522956.2	184007953.5	72.. 86	61899.46	139687.84
22..36	10995678.0	173012275.5	73.. 87	45168.04	94519.80
23..37	10488889.7	162523385.8	74.. 88	31685.89	62833.91
24..38	10001898.9	152521486.9	75.. 89	21836.36	40997.55
25..39	9534034.5	142987452.4	76.. 90	15043.57	25953.98
26..40	9079508.4	133907944.0	77.. 91	9687.71	16266.269
27..41	8636312.3	125271631.7	78.. 92	5996.494	10269.775
28..42	8205031.7	117066600.0	79.. 93	3735.576	6534.1992
29..43	7783260.3	109283339.7	80.. 94	2368.3930	4165.8062
30..44	7373190.1	101910149.6	81.. 95	1514.6432	2651.1630
31..45	6981257.6	94928892.0	82.. 96	976.5451	1674.6179
32..46	6609398.3	88319493.7	83.. 97	637.6021	1037.0158
33..47	6257775.0	82061718.7	84.. 98	408.8234	628.1924
34..48	5926612.8	76135105.9	85.. 99	262.3418	365.85064
35..49	5616203.8	70518902.1	86..100	171.86447	193.98617
36..50	5322851.0	65196051.1	87..101	104.67189	89.31428
37..51	5044673.9	60151377.2	88..102	56.89329	32.42099
38..52	4775336.3	55376040.9	89..103	25.85626	6.56473
39..53	4514787.7	50861253.2			
40..54	4261287.6	46599965.6			
41..55	4014376.3	42585589.3			
42..56	3774873.1	38810716.2			
43..57	3543618.4	35267097.8			
44..58	3319392.2	31947705·6			
45..59	3098166.6	28849539.0			
46..60	2879598.4	25969940.6			
47..61	2662065.5	23307875.1			
48..62	2455649.5	20852225.6			
49..63	2262960.3	18589265.3			
50..64	2084099.5	16505165.8			

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fifteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &15	40437303.	565161714.7	46 & 61	2702100.9	23786557.1
1..16	33011845.5	532149869.2	47.. 62	2492041.5	21294575.6
2..17	29269244.2	502880625.0	48.. 63	2294940.2	18999575.4
3..18	26388246.9	476492378.1	49.. 64	2113012.4	16886563.0
4..19	24475954.4	452016423.7	50.. 65	1942925.1	14943637.9
5..20	22918704.5	429097719.2	51.. 66	1784560.3	13159077.6
6..21	21700741.8	407396977.4	52.. 67	1635234.9	11523842.7
7..22	20665361.6	386731615.8	53.. 68	1494073.3	10029769.4
8..23	19747889.4	366983726.4	54.. 69	1360842.3	8668927.1
9..24	18912418.5	348071307.9	55.. 70	1235096.2	7433830.9
10..25	18138666.3	329932641.6	56.. 71	1116812.0	6317018.9
11..26	17403073.4	312529568.2	57.. 72	1001085.0	5315933.9
12..27	16690849.4	295838718.8	58.. 73	886784.3	4429149.6
13..28	15998435.6	279840283.2	59.. 74	774487.7	3654661.9
14..29	15317558.5	264522724.7	60.. 75	664786.3	2989875.6
15..30	14643904.6	249878820.1	61.. 76	564221.4	2425654.2
16..31	13986624.3	235892195.8	62.. 77	473797.6	1951856.6
17..32	13350495.9	222541699.9	63.. 78	395220.3	1556636.3
18..33	12741629.2	209800070.7	64.. 79	328873.8	1227762.52
19..34	12160912.4	197639158.3	65.. 80	270292.61	957469.91
20..35	11604895.6	186034262.7	66.. 81	221008.38	736461.53
21..36	11072583.7	174961679.0	67.. 82	177959.88	558501.65
22..37	10562767.5	164398911.5	68.. 83	141878.43	416623.22
23..38	10072846.3	154326065.2	69.. 84	111529.60	305093.62
24..39	9602146.3	144723918.9	70.. 85	86613.99	218479.63
25..40	9146406.7	135577512.2	71.. 86	65769.98	152709.65
26..41	8700417.6	126877094.6	72.. 87	48470.25	104239.40
27..42	8269267.4	118607827.2	73.. 88	34370.85	69868.55
28..43	7851558.5	110756268.7	74.. 89	24000.44	45868.11
29..44	7446372.9	103309895.8	75.. 90	16632.32	29235.79
30..45	7052507.6	96257388.2	76.. 91	10799.77	18436.023
31..46	6677548.7	89579839.5	77.. 92	6718.248	11717.775
32..47	6321816.5	83258023.0	78.. 93	4191.724	7526.051
33..48	5986786.9	77271236.1	79.. 94	2686.497	4839.5544
34..49	5673811.2	71597424.9	80.. 95	1724.5579	3114.9965
35..50	5378015.3	66219409.6	81.. 96	1127.4044	1987.5921
36..51	5098473.5	61120936.1	82.. 97	741.9929	1245.5992
37..52	4827741.7	56293194.4	83.. 98	481.4688	764.1304
38..53	4565772.5	51727421.9	84.. 99	311.8625	452.26793
39..54	4312507.2	47414914.7	85..100	208.39152	243.87641
40..55	4067270.8	43347643.9	86..101	129.77899	114.09742
41..56	3827599.1	39520044.8	87..102	72.58798	41.50944
42..57	3595291.6	35924753.2	88..103	33.14172	8.36772
43..58	3368512.0	32556241.2			
44..59	3144701.3	29411539.9			
45..60	2922881.9	26488658.0			

TABLE XXVII. 575

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Sixteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &16	39016482.	542055178.8	46 & 62	2529519.9	21724118.5
1..17	31935335.6	510219843.2	47.. 63	2328950.6	19395167.9
2..18	28220260.2	481999583.0	48.. 64	2142873.3	17252294.6
3..19	25441282.0	456558301.0	49.. 65	1969879.6	15282415.0
4..20	23596453.4	432961847.6	50.. 66	1808831.6	13473583.4
5..21	22094059.5	410867788.1	51.. 67	1658945.2	11814638.2
6..22	20922346.8	389945441.3	52.. 68	1517135.4	10297502.8
7..23	19923130.7	370022310.6	53.. 69	1383178.2	8914324.6
8..24	19037666.4	350984644.2	54.. 70	1256323.1	7658001.5
9..25	18231325.1	332753319.1	55.. 71	1137193.8	6520807.7
10..26	17481550.9	315271768.2	56.. 72	1020474.0	5500333.7
11..27	16771695.7	298500072.5	57.. 73	905711.0	4594622.7
12..28	16078829.8	282421242.7	58.. 74	793700.2	3800922.5
13..29	15397350.0	267023892.7	59.. 75	684129.5	3116793.0
14..30	14725259.6	252298633.1	60.. 76	583771.3	2533021.7
15..31	14073747.5	238224885.6	61.. 77	491381.9	2041639.8
16..32	13440658.4	224784227.2	62.. 78	410579.2	1631060.6
17..33	12830341.9	211953885.3	63.. 79	341953.4	1289107.21
18..34	12246175.6	199707709.7	64.. 80	281487.63	1007619.58
19..35	11686835.0	188020874.7	65.. 81	230478.01	777141.57
20..36	11151320.4	176869554.3	66.. 82	185859.22	591282.35
21..37	10636645.2	166232909.1	67.. 83	148468.71	442813.64
22..38	10143793.8	156089115.3	68.. 84	116962.52	325851.12
23..39	9670258.1	146418857.2	69.. 85	91087.19	234763.93
24..40	9211749.4	137207107.8	70.. 86	69351.66	165412.27
25..41	8764522.8	128442585.0	71.. 87	51501.06	113911.21
26..42	8330648.0	120111937.0	72.. 88	36883.69	77027.52
27..43	7913026.9	112198910.1	73.. 89	26034.16	50993.36
28..44	7511715.0	104687195.1	74.. 90	18280.66	32712.70
29..45	7122507.7	97564687.4	75.. 91	11940.34	20772.363
30..46	6745699.0	90818988.4	76.. 92	7489.438	13282.925
31..47	6387001.7	84431986.7	77.. 93	4696.250	8586.675
32..48	6048055.3	78383931.4	78.. 94	3014.544	5572.131
33..49	5731418.7	72652512.7	79.. 95	1956.188	3615.9434
34..50	5433179.6	67219333.1	80.. 96	1283.6516	2332.2918
35..51	5151312.4	62068020.7	81.. 97	856.6178	1475.6740
36..52	4879227.8	57188792.9	82.. 98	560.2967	915.3773
37..53	4615878.3	52572914.6	83.. 99	367.2785	548.09884
38..54	4361207.5	48211707.1	84..100	247.72835	300.37049
39..55	4116158.3	44095548.8	85..101	157.36146	143.00903
40..56	3878032.6	40217516.2	86..102	89.99929	53.00974
41..57	3645509.4	36572006.8	87..103	42.28426	10.72548
42..58	3417631.9	33154374.9			
43..59	3191236.1	29963138.8			
44..60	2966783.8	26996355.0			
45..61	2742716.6	24253638.4			

Preparatory Tables for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 3 per Cent.)

Difference of Age Seventeen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &17	37625973.	519723062.0	46.. 63	2363976.3	19779516.5
1..18	30694385.0	489028677.0	47.. 64	2174630.2	17604886.3
2..19	27207551.9	461821125.1	48.. 65	1997717.7	15607168.6
3..20	24527093.8	437294031.3	49.. 66	1833925.6	13773243.0
4..21	22747422.2	414546609.1	50.. 67	1681507.9	12091735.1
5..22	21301556.4	393245052.7	51.. 68	1539133.3	10552601.8
6..23	20170885.7	373074167.0	52.. 69	1404528.5	9148073.3
7..24	19206605.2	353867561.8	53.. 70	1276943.4	7871129.9
8..25	18352062.3	335515499.5	54.. 71	1156738.0	6714391.9
9..26	17570853.0	317944646.5	55.. 72	1039097.6	5675294.3
10..27	16847326.1	301097320.4	56.. 73	923252.8	4752041.5
11..28	16156711.6	284940608.8	57.. 74	810640.1	3941401.4
12..29	15474723.6	269465885.2	58.. 75	701100.6	3240300.8
13..30	14801965.7	254663919.5	59.. 76	600757.2	2639543.6
14..31	14151934.9	240511984.6	60.. 77	508408.0	2131135.6
15..32	13524380.8	226987603.8	61.. 78	425817.2	1705318.4
16..33	12916991.6	214070612.2	62.. 79	355242.4	1350075.98
17..34	12331438.7	201739173.5	63.. 80	292682.65	1057393.33
18..35	11768774.3	189970399.2	64.. 81	240023.98	817369.35
19..36	11230057.2	178740342.0	65.. 82	193822.79	623546.56
20..37	10712282.1	168028059.9	66.. 83	155058.99	468487.57
21..38	10214741.2	157813318.7	67.. 84	122395.46	346092.11
22..39	9738370.0	148074948.7	68.. 85	95524.30	250567.81
23..40	9277091.9	138797856.8	69.. 86	72933.34	177634.47
24..41	8827137.3	129970719.5	70.. 87	54305.69	123328.78
25..42	8392028.8	121578690.7	71.. 88	39190.00	84138.78
26..43	7971763.3	113606927.4	72.. 89	27937.51	56201.27
27..44	7570522.8	106036404.6	73.. 90	19829.70	36371.57
28..45	7185007.7	98851396.9	74.. 91	13123.68	23247.889
29..46	6812654.0	92038742.9	75.. 92	8280.401	14967.488
30..47	6452186.9	85586556.0	76.. 93	5235.335	9732.153
31..48	6110417.7	79476138.3	77.. 94	3377.382	6354.771
32..49	5790073.6	73686064.7	78.. 95	2195.057	4159.714
33..50	5488343.8	68197720.9	79.. 96	1456.062	2703.6524
34..51	5204151.3	62993569.6	80.. 97	975.3368	1728.3156
35..52	4929794.5	58063775.1	81.. 98	646.8528	1081.4628
36..53	4665104.9	53398670.2	82.. 99	427.4108	654.05199
37..54	4409068.3	48989601.9	83..100	291.74814	362.30385
38..55	4162641.3	44826960.6	84..101	187.06563	175.23822
39..56	3924645.3	40902315.3	85..102	109.12722	66.11100
40..57	3693543.7	37208771.6	86..103	52.42677	13.68423
41..58	3465368.0	33743403.6			
42..59	3237771.0	30505632.6			
43..60	3010685.9	27494946.7			
44..61	2783912.5	24711034.2			
45..62	2567541.4	22143492.8			

TABLE XXVIL 577

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Eighteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &18	36277491.	498145286.9	46 & 64	2207334.9	17947605.3
1..19	29592890.9	468552396.0	47.. 65	2027323.3	15920282.0
2..20	26229395.8	442322500.2	48.. 66	1859842.6	14060439.4
3..21	23644576.9	418677923.3	49.. 67	1704835.8	12355603.6
4..22	21931483.3	396746440.0	50.. 68	1560066.6	10795537.0
5..23	20536475.4	376209964.6	51.. 69	1424893.4	9370643.6
6..24	19445449.9	356764514.7	52.. 70	1296653.9	8073989.7
7..25	18514917.3	338249597.4	53.. 71	1175723.8	6898265.9
8..26	17687216.2	320562381.2	54.. 72	1056955.9	5841310.0
9..27	16933388.3	303628992.9	55.. 73	940102.1	4901207.9
10..28	16229568.8	287399424.1	56.. 74	826340.7	4074867.2
11..29	15549679.3	271849744.8	57.. 75	716064.2	3358803.0
12..30	14876347.5	256973397.3	58.. 76	615660.0	2743143.0
13..31	14225654.6	242747742.7	59.. 77	523201.0	2219942.0
14..32	13599516.2	229148226.5	60.. 78	440571.4	1779370.6
15..33	12997452.1	216150774.4	61.. 79	368426.6	1410944.00
16..34	12414719.1	203736055.3	62.. 80	304056.79	1106887.21
17..35	11850713.5	191885341.8	63.. 81	249569.95	857317.26
18..36	11308793.9	180576547.9	64.. 82	201850.58	655466.68
19..37	10787918.9	169788629.0	65.. 83	161702.83	493763.85
20..38	10287377.9	159501251.1	66.. 84	127828.38	365935.47
21..39	9806481.8	149694769.3	67.. 85	99961.42	265974.05
22..40	9342434.7	140352334.6	68.. 86	76486.12	189487.93
23..41	8869751.5	131462583.1	69.. 87	57110.31	132377.62
24..42	8451982.1	123010601.0	70.. 88	41324.20	91053.42
25..43	8030499.6	114980101.4	71.. 89	29684.43	61368.99
26..44	7626717.0	107353384.4	72.. 90	21279.44	40069.55
27..45	7241257.8	100112126.6	73.. 91	14235.73	25853.817
28..46	6872435.0	93239691.6	74.. 92	9101.026	16752.791
29..47	6516228.3	86723463.3	75.. 93	5788.241	10964.550
30..48	6172779.9	80550683.4	76.. 94	3765.074	7199.476
31..49	5849775.8	74700907.6	77.. 95	2459.259	4740.217
32..50	5544511.0	69156396.6	78.. 96	1633.861	3106.356
33..51	5256990.2	63899406.4	79.. 97	1106.335	2000.0214
34..52	4980361.2	58919045.2	80.. 98	736.5004	1263.5210
35..53	4713452.5	54205592.7	81.. 99	493.4384	770.08264
36..54	4456089.4	49749503.3	82..100	339.51428	430.56836
37..55	4208322.9	45541180.4	83..101	220.30602	210.26234
38..56	3968965.8	41572214.6	84..102	129.72650	80.53584
39..57	3737938.9	37834275.7	85..103	63.56925	16.96659
40..58	3511028.7	34323247.0			
41..59	3282994.9	31040252.1			
42..60	3054587.9	27985664.2			
43..61	2825103.3	25160555.9			
44..62	2606106.2	22554449.7			
45..63	2399509.5	20154940.2			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D.	N
0 & 19	34975642.	477296322.0	45 & 64	2240513.6	18282609.5
1 ..20	28529521.6	448766800.4	46.. 65	2057812.7	16224796.8
2 ..21	25286109.9	423480690.5	47.. 66	1887404.8	14337392.0
3 ..22	22796457.4	400684233.1	48.. 67	1728928.2	12608463.8
4 ..23	21143777.5	379540455.6	49.. 68	1581709.5	11026754.3
5 ..24	19797891.3	359742564.3	50.. 69	1444272.9	9582481.4
6 ..25	18745160.4	340997423.9	51.. 70	1315454.8	8267026.6
7 ..26	17844171.3	323153252.6	52.. 71	1193872.0	7073154.6
8 ..27	17045529.9	306107722.7	53.. 72	1074304.0	5998850.6
9 ..28	16312475.2	289795247.5	54.. 73	956259.0	5042591.6
10..29	15619799.1	274175448.4	55.. 74	841421.4	4201170.2
11..30	14948404.8	259227043.6	56.. 75	729932.9	3471237.3
12..31	14297140.3	244929903.3	57.. 76	628800.0	2842437.3
13..32	13670358.2	231259545.1	58.. 77	536179.8	2306257.5
14..33	13069660.1	218189885.0	59.. 78	453390.7	1852866.8
15..34	12492050.9	205697834.1	60.. 79	381192.2	1471674.61
16..35	11930747.3	193767086.8	61.. 80	315341.38	1156333.23
17..36	11386530.6	182380556.2	62.. 81	259268.66	897064.57
18..37	10863555.6	171517000.6	63.. 82	209878.35	687186.22
19..38	10360014.6	161156986.0	64.. 83	168400.28	518785.94
20..39	9876215.3	151280770.7	65.. 84	133305.48	385480.46
21..40	9407777.2	141872993.5	66.. 85	104398.54	281081.92
22..41	8952366.0	132920627.5	67.. 86	80038.91	201043.01
23..42	8511935.4	124408692.1	68.. 87	59892.31	141150.70
24..43	8087870.3	116320821.8	69.. 88	43458.39	97692.31
25..44	7682911.0	108637910.8	70.. 89	31300.97	66391.34
26..45	7295007.8	101342903.0	71.. 90	22610.03	43781.31
27..46	6926238.0	94416665.0	72.. 91	15276.50	28504.810
28..47	6573408.3	87843256.7	73.. 92	9872.216	18632.594
29..48	6234048.2	81609208.5	74.. 93	6361.881	12270.713
30..49	5909478.1	75699730.4	75.. 94	4162.704	8108.009
31..50	5601681.3	70098049.1	76.. 95	2741.559	5366.450
32..51	5310789.7	64787259.4	77.. 96	1830.516	3535.934
33..52	5030928.0	59756331.4	78.. 97	1241.430	2294.504
34..53	4761800.2	54994531.2	79.. 98	835.422	1459.0824
35 .54	4502270.8	50492260.4	80.. 99	561.8241	897.25829
36..55	4253203.2	46239057.2	81..100	391.96339	505.29490
37..56	4012522.0	42226535.2	82..101	256.37539	248.91951
38..57	3780150.9	38446384.3	83..102	152.77810	96.14141
39..58	3553230.1	34893154.2	84..103	75.56884	20.57257
40..59	3326252.6	31566901.6			
41..60	3097253.2	28469648.4			
42..61	2866304.2	25603344.2			
43..62	2644670.8	22958673.4			
44..63	2435550.3	20523123.1			

TABLE XXVII. 571

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty Years.

Age.	D.	N.	Ages.	D.	N.
0 & 20	33718853.	467155579.7	45 & 65	2088743.9	16522704.1
1..21	27502992.3	429652587.4	46..66	1915789.9	14606914.2
2..22	24379109.4	405273478.0	47..67	1754550.5	12852363.7
3..23	21977684.7	383295793.3	48..68	1604062.1	11248301.6
4..24	20383352.1	362912441.2	49..69	1464309.6	9783992.0
5..25	19084909.4	347327591.8	50..70	1333346.0	8450646.0
6..26	18066073.3	325761458.5	51..71	1211182.6	7239463.4
7..27	17196790.7	308564667.8	52..72	1090886.7	6148576.7
8..28	16420505.0	292144162.8	53..73	971954.3	5176622.4
9..29	15699590.7	276444572.1	54..74	861852.1	4320740.1
10..30	15015813.2	261428758.9	55..75	743254.1	3577486.0
11..31	14366392.0	247062366.9	56..76	640975.0	2936507.4
12..32	13739053.5	233323313.4	57..77	547623.5	2386883.9
13..33	13137742.0	220185571.4	58..78	464637.8	1924246.1
14..34	12561451.2	207624120.2	59..79	392283.7	1531962.43
15..35	12005064.4	195619055.8	60..80	325267.71	1205694.72
16..36	11464436.3	184154619.5	61..81	268891.01	936803.71
17..37	10939192.5	173215427.0	62..82	218034.58	718769.13
18..38	10432651.2	162782775.8	63..83	175097.69	543671.44
19..39	9945948.8	152836827.0	64..84	138826.74	404844.70
20..40	9474675.6	143362151.4	65..85	108871.73	295972.97
21..41	9014980.3	134347171.1	66..86	83591.71	212381.26
22..42	8571888.6	125775282.5	67..87	62674.33	149706.93
23..43	8145240.6	117630041.9	68..88	45575.37	104131.56
24..44	7737798.4	109892243.5	69..89	32917.51	71214.05
25..45	7348757.9	102543485.6	70..90	23841.32	47372.73
26..46	6977649.8	95565835.8	71..91	16231.73	31141.003
27..47	6624870.3	88910091.1	72..92	10593.970	20547.033
28..48	6288752.1	82652213.4	73..93	6900.966	13646.067
29..49	5965132.9	76684080.5	74..94	4575.248	9070.819
30..50	5658851.6	71025228.9	75..95	3031.095	6039.724
31..51	5365550.1	65659678.8	76..96	2040.643	3999.081
32..52	5082414.1	60577264.7	77..97	1390.852	2608.229
33..53	4810147.8	55767116.9	78..98	937.434	1670.795
34..54	4548452.2	51218664.7	79..99	637.284	1033.51107
35..55	4297282.0	46921382.7	80..100	446.28567	567.22540
36..56	4055314.1	42866068.6	81..101	295.98098	291.24442
37..57	3821635.1	39044433.5	82..102	177.79153	113.45289
38..58	3593356.2	35451077.3	83..103	88.99696	24.46593
39..59	3370222.3	32084844.1			
40..60	3138063.5	28946780.6			
41..61	2906339.6	26040441.0			
42..62	2683235.6	23357205.4			
43..63	2471591.1	20885014.1			
44..64	2274166.3	18611448.0			

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 3 per Cent.)

Difference of Age Twenty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 &21	32505605.	437697112.0	42 & 63	2507632.1	21243359.3
1..22	26516473.3	411180638.7	43.. 64	2307819.0	18935540.3
2..23	23503493.1	387677145.6	44.. 65	2120117.1	16815423.2
3..24	21187268.2	366469877.4	45.. 66	1944586.5	14870836.7
4..25	19649286.0	346840591.4	46.. 67	1780937.6	13089899.1
5..26	18393514.1	328447077.3	47.. 68	1627833.9	11462065.2
6..27	17410642.2	311036435.1	48.. 69	1485003.1	9977062.1
7..28	16566219.3	294470215.8	49.. 70	1351843.7	8625218.4
8..29	15803561.5	278666654.3	50.. 71	1227655.6	7397562.8
9..30	15092519.4	263574134.9	51.. 72	1106704.1	6290858.7
10..31	14431176.0	249142958.9	52.. 73	986957.2	5303901.5
11..32	13805602.0	235337356.9	53.. 74	869930.2	4433971.3
12..33	13203760.8	222133596.1	54.. 75	756027.9	3677943.4
13..34	12626885.7	209506710.4	55.. 76	652676.4	3025267.0
14..35	12071759.2	197434951.2	56.. 77	558230.0	2467037.0
15..36	11535848.7	185899102.5	57.. 78	474554.6	1992482.4
16..37	11013070.3	174885032.2	58.. 79	402015.0	1590467.41
17..38	10505287.8	164380744.4	59.. 80	335761.09	1254706.33
18..39	10015682.4	154365062.0	60.. 81	278207.87	976498.45
19..40	9541574.0	144823488.0	61.. 82	226126.58	750371.87
20..41	9079085.5	135744402.5	62.. 83	181902.30	568469.57
21..42	8631841.8	127112560.7	63.. 84	144348.02	424121.55
22..43	8202611.2	118909949.5	64.. 85	113380.99	310740.56
23..44	7792685.7	111117263.8	65.. 86	87173.39	223567.17
24..45	7401258.0	103716005.8	66.. 87	65456.32	158110.85
25..46	7029061.5	96686944.3	67.. 88	47692.36	110418.49
26..47	6674045.2	90012899.1	68.. 89	34521.01	75897.48
27..48	6337985.5	83674913.6	69.. 90	25072.60	50824.88
28..49	6020503.3	77654410.3	70.. 91	17115.67	33709.212
29..50	5715016.8	71939391.5	71.. 92	11256.402	22452.810
30..51	5420310.4	66519081.1	72.. 93	7405.494	15047.316
31..52	5134819.6	61384261.5	73.. 94	4962.938	10084.378
32..53	4859374.3	56524867.2	74.. 95	3331.491	6751.887
33..54	4594633.6	51930253.6	75.. 96	2256.156	4496.731
34..55	4341360.7	47588892.9	76.. 97	1550.508	2946.223
35..56	4097342.0	43491550.9	77.. 98	1050.266	1895.957
36..57	3862391.3	39629159.6	78.. 99	715.102	1180.8553
37..58	3632790.5	35996369.1	79..100	506.2275	674.62777
38..59	3404247.4	32592121.7	80..101	337.00104	337.62673
39..60	3175782.1	29416339.6	81..102	205.25725	132.36948
40..61	2944634.3	26471705.3	82..103	103.56788	28.80160
41..62	2720713.9	23750991.4			

Difference of Age Twenty-Two Years.

Ages.	D	N.	Ages.	D.	N.
0 &22	31339645.	416894867.2	5 & 27	17726303.6	313584676.4
1..23	25564089.9	393330777.3	6.. 28	16772229.4	296812447.0
2..24	███████	370672575.4	7.. 29	15943801.2	280868545.8
3..25	20424250.6	350248324.8	8.. 30	15192469.9	265676175.9
4..26	18937444.8	331310880.0	9.. 31	███████	251171280.3

TABLE XXVII. 581

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
10..32	13867857.1	237303423.2	46 & 68	1652315.2	11670425.1
11..33	13267716.5	224035706.7	47.. 69	1507010.4	10163414.7
12..34	12690337.4	211345369.3	48.. 70	1370947.8	8792466.9
13..35	12134642.8	199210726.5	49.. 71	1244687.0	7547779.9
14..36	11599936.9	187610789.6	50.. 72	1121756.0	6426023.9
15..37	11081671.1	176529118.5	51.. 73	1001267.7	5424756:2
16..38	10576235.2	165952883.3	52.. 74	883358.2	4541398.0
17..39	10085415.9	155867467.4	53.. 75	768436.8	3772961.2
18..40	9608472.3	146258995.1	54.. 76	663893.6	3109067.6
19..41	9143190.8	137115804.3	55.. 77	568417.7	2540649.9
20..42	8693222.5	128422581.8	56.. 78	483745.8	2056904.1
21..43	8259981.6	120162600.2	57.. 79	410595.2	1646308.92
22..44	7847572.9	112315027.3	58.. 80	344090.19	1302218.73
23..45	7453758.1	104861269.2	59.. 81	286302.85	1015915.88
24..46	7079277.6	97781991.6	60.. 82	233961.71	781954.17
25..47	6723219.8	91058771.8	61.. 83	188653.32	593300.85
26..48	6385030.8	84673741.0	62.. 84	149957.62	443343.23
27..49	6067636.7	78606104.3	63.. 85	117890.27	325452.96
28..50	5765168.2	72840936.1	64.. 86	90783.96	234669.00
29..51	5474109.9	67366826.2	65.. 87	68260.96	166408.04
30..52	5187225.1	62179601.1	66.. 88	49809.33	116598.71
31..53	4909480.1	57270121.0	67.. 89	36124.52	80474.19
32..54	4641654.8	52628466.2	68.. 90	26293.95	54180.24
33..55	4385439.5	48243026.7	69.. 91	17999.61	36180.625
34..56	4139369.9	44103656.8	70.. 92	11869.399	24311.226
35..57	3902419.9	40201236.9	71.. 93	7868.553	16442.673
36..58	3671532.8	36529704.1	72.. 94	5325.777	11116.896
37..59	3441606.4	33088097.7	73.. 95	3613.790	7503.106
38..60	3211645.6	29876452.1	74.. 96	2479.750	5023.356
39..61	2980028.0	26896424.1	75.. 97	1714.258	3309.098
40..62	2756562.9	24139861.2	76.. 98	1170.827	2138.271
41..63	2542657.7	21597203.5	77.. 99	801.175	1337.0955
42..64	2341471.8	19255731.7	78..100	568.0426	769.0529
43..65	2151490.1	17104241.6	79..101	382.2645	386.78836
44..66	1973794.3	15130447.3	80..102	233.70391	153.08445
45..67	1807707.0	13322740.3	81..103	119.56734	33.51711

Difference of Age Twenty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 &23	30214029.	400726992.2	10 &33	13327546.0	225892578.4
1..24	24644690.2	376082302.0	11..34	12751806.3	213140772.1
2..25	21842211.4	354240090.6	12..35	12195621.0	200945151.1
3..26	19684334.5	334555756.1	13..36	11660362.5	189284788.6
4..27	18250400.6	316305355.5	14..37	11143236.0	178141552.6
5..28	17076219.7	299229135.8	15..38	10642115.1	167499437.5
6..29	16142071.0	283087064.8	16..39	10153527.7	157345909.8
7..30	15327286.8	267759778.0	17..40	9675370.7	147670539.1
8..31	14600954.5	253158823.5	18..41	9207296.0	138463243.1
9..32	13938699.1	239220124.4	19..42	8754603.3	129708639.8

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Three Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 &43	8318718.1	121389921.7	51 & 74	896166.4	4643319.1
21..44	7902461.1	113487460.6	52.. 75	780298.2	3863020.9
22..45	7506258.1	105981202.5	53.. 76	674790.1	3188230.8
23..46	7129493.8	98851708.7	54.. 77	578186.7	2610044.1
24..47	6771251.1	92080457.6	55.. 78	492574.1	2117470.0
25..48	6432076.0	85648381.6	56.. 79	418547.7	1698922.34
26..49	6112675.2	79535706.4	57.. 80	351434.12	1347488.22
27..50	5810302.6	73725403.8	58.. 81	293405.06	1054083.16
28..51	5522145.3	68203258.5	59.. 82	240769.26	813313.90
29..52	5238711.1	62964547.4	60.. 83	195190.01	618123.89
30..53	4959585.8	58004961.6	61.. 84	155523.06	462600.83
31..54	4689515.6	53315446.0	62.. 85	122471.68	340129.15
32..55	4430319.7	48885126.3	63.. 86	94394.51	245734.64
33..56	4181397.9	44703728.4	64.. 87	71088.20	174646.44
34..57	3942448.4	40761280.0	65.. 88	51943.53	122702.91
35..58	3709583.4	37051696.6	66.. 89	37728.01	84974.90
36..59	3478309.9	33573386.7	67.. 90	27516.32	57459.58
37..60	3246890.9	30326495.8	68.. 91	18876.42	38583.162
38..61	3013681.0	27312814.8	69.. 92	12482.396	26100.766
39..62	2789696.0	24523118.8	70.. 93	8297.056	17803.710
40..63	2576160.5	21946958.3	71.. 94	5658.792	12144.918
41..64	2374176.6	19572781.7	72.. 95	3877.993	8266.925
42..65	2182863.3	17389918.4	73.. 96	2689.875	5577.050
43..66	2003002.1	15386916.3	74.. 97	1884.148	3692.902
44..67	1834859.0	13552057.3	75.. 98	1294.478	2398.424
45..68	1677151.4	11874905.9	76.. 99	893.141	1505.2825
46..69	1529674.7	10345231.2	77..100	636.4137	868.8688
47..70	1391265.0	8953966.2	78..101	428.9425	439.9263
48..71	1262276.8	7691689.4	79..102	265.0932	174.83313
49..72	1137318.2	6554371.2	80..103	136.13820	38.69493
50..73	1014885.7	5539485.5			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 &24	29127397.	383171984.3	15 &39	10216774.5	158800564.8
1..25	23757160.3	359414824.0	16..40	9740713.3	149059851.5
2..26	21050926.4	338363897.6	17..41	9271401.1	139788450.4
3..27	18970193.5	319393704.1	18..42	8815984.0	130972466.4
4..28	17581195.4	301812508.7	19..43	8377454.6	122595011.8
5..29	16434640.0	285377868.7	20..44	7958654.2	114636357.6
6..30	15517889.9	269859978.8	21..45	7558758.1	107077599.5
7..31	14730522.4	255129456.4	22..46	7179709.9	99897889.6
8..32	14031008.4	241098448.0	23..47	6819282.2	93078607.4
9..33	13395627.8	227702820.2	24..48	6478027.4	86600580.0
10..34	12809309.3	214893510.9	25..49	6157713.8	80442866.2
11..35	12254693.6	202638817.3	26..50	5853431.0	74589435.2
12..36	11718957.4	190919859.9	27..51	5565377.1	69024058.1
13..37	11201282.7	179718577.2	28..52	5284680.9	63739377.2
14..38	10701237.9	169017339.3.	29..53	5008812.3	58730564.9

TABLE XXVII. 583

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Four Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
30 &54	4737376.3	53993188.6	55 & 79	426186.1	1748285.81
31..55	4476001.5	49517187.1	56.. 80	358240.70	1390045.11
32..56	4224190.0	45292997.1	57.. 81	299667.22	1090377.89
33..57	3982477.0	41310520.1	58.. 82	246741.93	843635.96
34..58	3747633.9	37562886.2	59.. 83	200869.43	642766.53
35..59	3514357.9	34048528.3	60.. 84	160911.81	481854.72
36..60	3281517.8	30767010.5	61.. 85	127017.02	354837.70
37..61	3046753.7	27720256.8	62.. 86	98062.85	256774.85
38..62	2821199.5	24899057.3	63.. 87	73915.44	182859.41
39..63	2607125.2	22291932.1	64.. 88	54094.93	128764.48
40..64	2405459.4	19886472.7	65.. 89	39344.57	89419.91
41..65	2213352.7	17673120.0	66.. 90	28736.67	60683.24
42..66	2032210.1	15640909.9	67.. 91	19753.24	40930.000
43..67	1862011.0	13778898.9	68.. 92	13090.449	27839.551
44..68	1702342.4	12076556.5	69.. 93	8725.558	19113.993
45..69	1552667.4	10523889.1	70.. 94	5966.958	13147.035
46..70	1412188.3	9111700.8	71.. 95	4120.480	9026.555
47..71	1280983.3	7830717.5	72.. 96	2886.532	6140.023
48..72	1153390.8	6677326.7	73.. 97	2043.805	4096.218
49..73	1028965.3	5648361.4	74.. 98	1422.767	2673.451
50..74	908355.0	4740006.4	75.. 99	987.467	1685.9838
51..75	791612.2	3948394.2	76..100	709.4678	976.5160
52..76	685206.0	3263188.2	77..101	480.5713	495.9447
53..77	587676.7	2675511.5	78..102	297.4636	198.4811
54..78	501039.6	2174471.9	79..103	154.4234	44.05767

Difference of Age Twenty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 &25	28078431.	366208604.0	20 & 45	7612508.2	109152125.0
1..26	22896501.8	343312102.2	21.. 46	7229925.9	100922199.1
2..27	20287205.9	323024896.3	22.. 47	6867313.4	94054885.7
3..28	18274594.9	304750301.4	23.. 48	6523978.6	87530907.1
4..29	16920643.1	287829658.3	24.. 49	6201705.1	81329202.0
5..30	15799145.8	272030512.5	25.. 50	5896559.3	75432642.7
6..31	14913704.5	257116808.0	26.. 51	5606687.6	69825955.1
7..32	14155518.6	242961289.4	27.. 52	5326053.7	64499901.4
8..33	13484340.7	229476948.7	28.. 53	5052764.8	59447136.6
9..34	12874743.9	216602204.8	29.. 54	4784397.4	54662739.2
10..35	12309954.9	204292249.9	30.. 55	4521683.2	50141056.0
11..36	11775721.1	192516528.8	31.. 56	4267746.2	45873309.8
12..37	11257570.7	181258958.1	32.. 57	4023233.3	41850076.5
13..38	10756982.3	170501975.8	33.. 58	3785684.5	38064392.0
14..39	10273534.4	160228441.4	34.. 59	3550406.0	34513986.0
15..40	9801388.6	150427052.8	35.. 60	3315526.4	31198459.6
16..41	9334015.5	141093037.3	36.. 61	3079246.2	28119213.4
17..42	8877364.7	132215672.6	37.. 62	2852160.0	25267053.4
18..43	8436191.0	123779481.6	38.. 63	2636566.9	22630486.5
19..44	8014848.4	115764633.2	39.. 64	2434372.4	20196114.1

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Five Years—continued.

Ages.	D.	N.	Ages.	D.	N.
40 & 65	2342516.6	17953597.5	60 & 85	131418.06	369543.39
41..66	2060595.2	15893002.3	61.. 86	101702.30	267841.09
42..67	1889162.8	14003639.5	62.. 87	76787.92	191053.17
43..68	1727533.3	12276306.2	63.. 88	56246.34	134806.63
44..69	1575988.4	10700317.8	64.. 89	40974.14	93832.69
45..70	1433415.1	9266902.7	65.. 90	29967.97	63864.72
46..71	1300248.4	7966654.3	66.. 91	20630.05	43234.667
47..72	1170483.6	6796170.7	67.. 92	13698.503	29536.164
48..73	1043506.5	5752664.2	68.. 93	9150.605	20385.559
49..74	920956.7	4831707.5	69.. 94	6275.123	14110.436
50..75	802378.8	4029328.7	70.. 95	4344.873	9765.563
51..76	695141.2	3334187.5	71.. 96	3067.025	6698.538
52..77	596747.8	2737439.7	72.. 97	2193.228	4505.310
53..78	509263.4	2228176.3	73.. 98	1543.328	2961.982
54..79	433510.7	1794665.55	74.. 99	1085.329	1876.6532
55..80	364778.59	1429886.96	75..100	784.3951	1092.2581
56..81	305471.18	1124415.78	76..101	535.7361	556.5220
57..82	252008.15	872407.63	77..102	333.2671	223.2549
58..83	205852.33	666555.30	78..103	173.2798	49.9751
59..84	165593.85	500961.45			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 26	27061224.	349819953.4	25 & 51	5647998.0	70608515.9
1..27	22065824.5	327754128.9	26.. 52	5365587.6	65242928.3
2..28	19543315.1	308210813.8	27.. 53	5092321.9	60150606.4
3..29	17587990.5	290622823.3	28.. 54	4826380.6	55324225.8
4..30	16266356.2	274356467.1	29.. 55	4566563.3	50757662.5
5..31	15184009.7	259172457.4	30.. 56	4311302.5	46446360.0
6..32	14331550.2	244840907.2	31.. 57	4064717.5	42381642.5
7..33	13603999.7	231236907.5	32.. 58	3824427.0	38557215.5
8..34	12960007.1	218276900.4	33.. 59	3586454.0	34970761.5
9..35	12372838.6	205904061.8	34.. 60	3349534.9	31621226.6
10..36	11828822.6	194075239.2	35.. 61	3111158.5	28510000.7
11..37	11312099.6	182763139.6	36.. 62	2882577.1	25627491.0
12..38	10811037.5	171952102.1	37.. 63	2665501.3	22961989.7
13..39	10327050.8	161625051.3	38.. 64	2461863.3	20500126.4
14..40	9855840.8	151769210.5	39.. 65	2269470.9	18230655.5
15..41	9392157.5	142377053.0	40.. 66	2087746.3	16142909.2
16..42	8937318.0	133439735.0	41.. 67	1915550.0	14227359.2
17..43	8494927.3	124944807.7	42.. 68	1752724.4	12474634.8
18..44	8071042.4	116873765.3	43.. 69	1599309.7	10875325.1
19..45	7666258.2	109207507.1	44.. 70	1454945.0	9420380.1
20..46	7281337.7	101926169.4	45.. 71	1319792.6	8100587.5
21..47	6915344.5	95010824.9	46.. 72	1188086.8	6912500.7
22..48	6569929.9	88440895.0	47.. 73	1058970.9	5853529.8
23..49	6245696.2	82195198.8	48.. 74	933971.6	4919558.2
24..50	5938684.9	76256513.9	49.. 75	813510.2	4106048.0

TABLE XXVII. 585

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Six Years—*continued*

Ages.	D.	N.	Ages.	D.	N.
50& 76	704595.7	3401452.3	64 & 90	31209.19	67020.32
51..77	605400.3	2796052.0	65.. 91	21513.99	45506.329
52..78	517124.2	2278927.8	66.. 92	14306.555	31199.774
53..79	440626.1	1838301.70	67.. 93	9575.653	21624.121
54..80	371047.80	1467253.90	68.. 94	6580.801	15043.320
55..81	311046.02	1156207.88	69.. 95	4569.264	10474.056
56..82	256889.05	899318.83	70.. 96	3234.047	7240.009
57..83	210245.84	689072.99	71.. 97	2330.369	4909.640
58..84	169701.67	519371.32	72.. 98	1656.159	3253.481
59..85	135241.92	384129.40	73.. 99	1177.296	2076.1845
60..86	105226.20	278903.20	74..100	862.1321	1214.0524
61..87	79637.79	199265.41	75..101	592.3155	621.7369
62..88	58432.17	140833.24	76..102	371.5230	250.2139
63..89	42603.73	98229.51	77..103	194.1363	56.0776

Difference of Age Twenty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 &27	26079452.	333984813.8	30 & 57	4106201.6	42906768.3
1..28	21256715.4	312728098.4	31.. 58	3863861.1	39042907.2
2..29	18809042.9	293919055.5	32.. 59	3623157.5	35419749.7
3..30	16907898.7	277011156.8	33.. 60	3383543.5	32036206.2
4..31	15633029.3	261378127.5	34.. 61	3143070.7	28893135.5
5..32	14591304.1	246786823.4	35.. 62	2912451.2	25980684.3
6..33	13773173.0	233013650.4	36.. 63	2693927.8	23286756.5
7..34	13075013.2	219938637.2	37.. 64	2488880.3	20797876.2
8..35	12454778.0	207483859.2	38.. 65	2295099.7	18502776.5
9..36	11889248.4	195594610.8	39.. 66	2112840.3	16389936.2
10..37	11363110.4	184231500.4	40.. 67	1940789.8	14449146.4
11..38	10863403.4	173368097.0	41.. 68	1777205.8	12671940.6
12..39	10378945.5	162989151.5	42.. 69	1622631.1	11049309.5
13..40	9907181.3	153081970.2	43.. 70	1476475.1	9572834.4
14..41	9444336.2	143637634.0	44.. 71	1339616.0	8233218.4
15..42	8992988.9	134644645.1	45.. 72	1205945.2	7027273.2
16..43	8552297.9	126092347.2	46.. 73	1074897.1	5952376.1
17..44	8127236.5	117965110.7	47.. 74	947812.8	5004563.3
18..45	7720008.3	110245102.4	48.. 75	825006.7	4179556.6
19..46	7332749.6	102912352.8	49.. 76	714370.6	3465156.0
20..47	6964519.3	95947833.5	50.. 77	613634.2	2851551.8
21..48	6615881.0	89331952.5	51.. 78	524622.2	2326929.6
22..49	6289687.3	83042265.2	52.. 79	447427.4	1879502.21
23..50	5980810.3	77061454.9	63.. 80	377137.89	1502364.32
24..51	5688347.7	71373107.2	54.. 81	316391.77	1185972.55
25..52	5405121.6	65967985.6	55.. 82	261577.27	924395.28
26..53	5130120.9	60837864.7	56.. 83	214317.88	710077.40
27..54	4864165.4	55973699.3	57.. 84	173323.63	536753.77
28..55	4606634.9	51367064.4	58.. 85	138596.81	398156.96
29..56	4354094.5	47012969.9	59.. 86	108287.96	289869.00

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
60 &87	82397.17	207471.83	69 & 96	3401.070	7756.571
61..88	60600.78	146871.05	70.. 97	2457.275	5299.296
62..89	44259.37	102611.68	71.. 98	1759.718	3539.578
63. 90	32450.40	70161.28	72.. 99	1263.367	2276.2109
64..91	22405.06	47756.21	73..100	935.1862	1341.0347
65..92	14919.552	32836.665	74..101	651.0166	690.0081
66..93	10000.698	22835.967	75..102	410.7596	279.2485
67..94	6886.481	15949.486	76..103	216.4212	62.8273
68..95	4791.845	11157.641			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 &28	25123172.	318689721.2	38 & 66	2136700.3	16632631.9
1..29	20458068.1	298231653.1	39.. 67	1964117.5	14668514.4
2..30	18081735.5	280149917.6	40.. 68	1800622.7	12867891.7
3..31	16249593.6	263900324.0	41.. 69	1645295.4	11222596.3
4..32	15022796.3	248877527.7	42.. 70	1498005.3	9724591.0
5..33	14022806.5	234854721.2	43.. 71	1359439.4	8365151.6
6..34	13237608.2	221617113.0	44.. 72	1224058.5	7141093.1
7..35	12565300.7	209051812.3	45.. 73	1091054.0	6050039.1
8..36	11967985.3	197083827.0	46.. 74	962067.2	▓▓▓▓▓
9..37	11421157.3	185662669.7	47.. 75	837233.0	4250738.9
10..38	10912390.9	174750278.8	48.. 76	724466.0	3525272.9
11..39	10429218.5	164321060.3	49.. 77	622147.3	2904125.6
12..40	9956966.2	154364094.1	50.. 78	531757.4	2372368.2
13..41	9493533.1	144870561.0	51.. 79	453914.9	1918453.26
14..42	9042950.0	135827611.0	52.. 80	382959.30	1535493.96
15..43	8605570.5	127272040.5	53.. 81	321584.79	1213909.17
16..44	8182123.7	119039916.8	54.. 82	266072.84	▓▓▓▓▓
17..45	7773758.4	111266158.4	55.. 83	218229.18	729607.15
18..46	7384161.2	103881997.2	56.. 84	176680.56	552926.59
19..47	7013694.1	96868303.1	57.. 85	141554.90	411371.69
20..48	6662926.3	90205376.8	58.. 86	110974.22	300397.47
21..49	6333678.4	83871698.4	59.. 87	84794.67	215602.80
22..50	6022935.8	77848762.6	60.. 88	62700.55	152902.25
23..51	5728697.4	72120065.2	61.. 89	45902.00	107000.25
24..52	5443736.2	66676329.0	62.. 90	33711.48	73288.77
25..53	5167920.0	61508409.0	63.. 91	▓▓▓▓▓	49992.645
26..54	4900270.9	56608138.1	64.. 92	15537.493	34455.152
27..55	4642699.4	51965438.7	65.. 93	10429.202	24025.950
28..56	4392301.7	47573137.0	66.. 94	7192.159	16833.791
29..57	4146957.9	43426179.1	67.. 95	5014.428	11819.363
30..58	3903295.3	39522883.8	68.. 96	3566.745	8252.618
31..59	3660516.4	35862367.4	69.. 97	2584.182	5668.436
32..60	3418170.3	32444197.1	70.. 98	1855.548	3812.888
33..61	3174983.0	29269214.1	71.. 99	1342.364	2470.5236
34..62	2942325.3	26326888.8	72..100	1003.5574	1466.9662
35..63	2721846.7	23605042.1	73..101	706.1815	760.7847
36..64	2515423.3	▓▓▓▓▓	74..102	451.4679	309.3166
37..65	2320286.6	▓▓▓▓▓	75..103	239.2773	70.0393

TABLE XXVII. 527

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Twenty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 &29	24179256.	303933007.6	38 & 67	10■■■.■■	14884084.6
1..30	19666996.2	284266011.4	39..	1822265.8	13061818.8
2..31	17377727.3	266888284.1	40.. 69	1666974.3	11394844.5
3..32	15615293.0	251272991.1	41.. 70	1518928.9	9875915.6
4..33	14437467.1	236835504.0	42.. 71	1379262.8	8496652.8
5..34	13477534.8	223357969.2	43.. 72	1242171.9	7254480.9
6..35	12721557.2	210636412.0	44.. 73	1107441.7	6147039.2
7..36	12074188.3	198562223.7	45.. 74	976528.1	5170511.1
8..37	11496794.0	187065429.7	46.. 75	849824.4	4320686.7
9..38	10968135.4	176097294.3	47.. 76	735202.4	3585484.3
10..39	10476248.1	165621046.2	48.. 77	630939.4	2954544.9
11..40	10005195.3	155615850.9	49.. 78	539134.6	2415410.3
12..41	9541239.3	146074611.6	50.. 79	460088.4	1955321.85
13..42	9090056.0	136984555.6	51.. 80	388512.04	1566809.81
14..43	8653379.2	128331176.4	52.. 81	326548.69	1240261.13
15..44	8233090.6	120098085.8	53.. 82	270439.94	969821.19
16..45	7826258.5	112271827.3	54.. 83	221979.75	747841.44
17..46	7435573.0	104836254.3	55.. 84	179904.98	567936.46
18..47	7062868.7	97773385.6	56.. 85	144296.54	423639.92
19..48	6709971.7	91063413.9	57.. 86	113342.75	310297.17
20..49	6378717.0	84684696.9	58.. 87	86898.14	223399.03
21..50	6065061.2	78619635.7	59.. 88	64524.95	158874.08
22..51	5769047.1	72850588.6	60.. 89	47492.46	111381.63
23..52	5482350.7	67368237.9	61.. 90	34962.63	76418.99
24..53	5204840.0	62163397.9	62.. 91	24201.46	52217.527
25..54	4936376.2	57227021.7	63.. 92	16155.433	36062.094
26..55	4677161.1	52549860.6	64.. ■	10861.160	25200.934
27..56	4426688.2	48123172.4	65.. 94	7500.325	17700.609
28..57	4183347.5	43939824.9	66.. ■	5237.008	12463.601
29..58	3942037.7	39997787.2	67.. 96	3732.422	8731.179
30..59	3697875.3	36299911.9	68.. 97	2710.064	6021.115
31..60	3453415.7	32846496.2	69.. 98	1951.378	4069.737
32..61	3207475.7	29639020.5	70.. 99	1415.457	2654.2701
33..62	2972199.4	26666821.1	71..100	1066.3090	1587.9611
34..63	2749765.8	23917055.3	72..101	757.8103	830.1508
35..64	2541492.3	21373563.0	73..102	489.7236	340.4272
36..65	2345031.5	19030531.5	74..103	262.8911	77.4361
37..66	2160148.9	16870382.6			

Difference of Age Thirty Years.

Ages.	D.	N.	Ages.	D.	N.
0 &30	23244293.	289717246.6	8 & 38	11040772.0	177417544.3
1..31	18901266.2	270815980.4	9.. 39	10529764.5	166887779.8
2..32	16699390.2	254116590.2	10.. 40	10050312.7	156837467.1
3..33	15006899.3	239109690.9	11.. 41	9587454.6	147250012.5
4..34	13876090.8	225233600.1	12.. 42	9135734.7	138114277.8
5..35	13952130.5	212281469.6	13.. 43	8698456.0	129415821.8
6..36	12224337.5	200057132.1	14.. 44	8278630.0	121136991.8
7..37	11598815.8	188458316.3	15.. 45	7875008.5	113261983.3

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
16 &46	7485789.1	105776194.2	45 & 75	862598.2	4390025.8
17..47	7112043.6	98664150.6	46..76	746259.3	3643766.5
18..48	6757016.9	91907133.7	47..77	640289.8	3003476.7
19..49	6423755.5	85483376.2	48..78	546753.6	2456723.1
20..50	6108189.7	79375188.5	49..79	466471.4	1990251.65
21..51	5809396.8	73565791.7	50..80	393796.09	1596455.57
22..52	5520965.4	68044826.3	51..81	331283.49	1265172.08
23..53	5241760.0	62803066.3	52..82	274614.38	990557.70
24..54	4971642.2	57831424.1	53..83	225623.14	764934.56
25..55	4711622.6	53119801.5	54..84	182996.88	581937.68
26..56	4459546.3	48660255.2	55..85	146929.95	435007.73
27..57	4216098.2	44444157.0	56..86	115537.97	319469.76
28..58	3976629.1	40467527.9	57..87	88752.82	230716.94
29..59	3734578.7	36732949.2	58..88	66125.59	164591.35
30..60	3488661.0	33244288.2	59..89	48874.34	115717.01
31..61	3240548.3	30003739.9	60..90	36174.06	79542.95
32..62	3002616.6	27001123.3	61..91	23099.66	54443.293
33..63	2777684.7	24223438.6	62..92	16793.261	37660.032
34..64	2567561.4	21655877.2	63..93	11293.118	26366.914
35..65	2369334.6	19286542.6	64..94	7810.975	18555.939
36..66	2183186.1	17103356.5	65..95	5461.402	13094.537
37..67	2008096.0	15095260.5	66..96	3898.098	9196.439
38..68	1842844.3	13252416.2	67..97	2835.948	6360.491
39..69	1687010.9	11565405.3	68..98	2046.435	4314.056
40..70	1538942.8	10026462.5	69..99	1488.569	2825.4868
41..71	1398527.9	8627934.6	70..100	1124.3776	1701.1092
42..72	1260285.4	7367649.2	71..101	805.1956	895.9136
43..73	1123829.5	6243819.7	72..102	525.5273	370.3863
44..74	991195.7	5252624.0	73..103	285.2760	85.1103

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 &31	22339282.	276027230.5	15 & 46	7532418.4	106701678.5
1..32	18163458.0	257863772.5	16..47	7160074.7	99541603.8
2..33	16048758.5	241815014.0	17..48	6804062.2	92737541.6
3..34	14423361.5	227391652.5	18..49	6468794.1	86268747.5
4..35	13335149.3	214056503.2	19..50	6151318.2	80117429.3
5..36	12445899.0	201610604.2	20..51	5850707.2	74266722.1
6..37	11743053.5	189867550.7	21..52	5559579.9	68707142.2
7..38	11138747.1	178728803.6	22..53	5278680.0	63428462.2
8..39	10599498.1	168129305.5	23..54	5006908.0	58421554.2
9..40	10101653.3	158027652.2	24..55	4745282.8	53676271.4
10..41	9630688.4	148396963.8	25..56	4492404.7	49183866.7
11..42	9179985.9	139216977.9	26..57	4247393.1	44936473.6
12..43	8742166.9	130474811.1	27..58	4007761.4	40928712.2
13..44	8321955.7	122152855.4	28..59	3767349.7	37161362.5
14..45	7918759.5	114234096.9	29..60	3523287.8	33638074.7

TABLE XXVII. 589

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-One Years—*continued*.

Ages	D.	N.	Ages.	D.	N.
30 &61	3273621.0	30364453.7	52 & 83	229105.80	781058.72
31..62	3033577.1	27330876.6	53.. 84	186000.46	595058.26
32..63	2806111.3	24524765.3	54.. 85	149455.13	445603.13
33..64	2593630.3	21931135.0	55.. 86	117646.53	327956.60
34..65	2393637.8	19537497.2	56.. 87	90471.78	237484.82
35..66	2205811.9	17331685.3	57.. 88	67536.91	169947.91
36..67	2029511.6	15302173.7	58.. 89	50086.74	119861.17
37..68	1863068.0	13439105.7	59.. 90	37226.61	82634.56
38..69	1706061.9	11733043.8	60.. 91	25969.34	56665.218
39..70	1557440.4	10175603.4	61.. 92	17406.145	39259.073
40..71	1416955.3	8758648.1	62.. 93	11731.988	27527.085
41..72	1277888.6	7430759.5	63.. 94	8121.624	19405.461
42..73	1140217.2	6340342.3	64.. 95	5687.603	13717.858
43..74	1005863.1	5334679.2	65.. 96	4065.121	9652.737
44..75	875554.4	4459124.8	66.. 97	2961.830	6690.907
45..76	757476.4	3701648.4	67.. 98	2141.493	4549.414
46..77	649919.3	3051729.1	68.. 99	1561.080	2988.3336
47..78	554856.4	2496872.7	69..100	1182.4463	1805.8873
48..79	473063.5	2023809.15	70..101	849.0446	956.8427
49..80	399259.26	1624549.89	71..102	558.3879	398.4548
50..81	335789.19	1288760.70	72..103	306.1324	92.3224
51..82	278596.18	1010164.52			

Difference of Age Thirty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0&32	21467271.	262844912.3	22 & 54	5042173.8	58998421.6
1..33	17455784.3	245389128.0	23.. 55	4778943.0	54219478.6
2..34	15424708.5	229964419.5	24.. 56	4524498.7	49694979.9
3..35	13861085.4	216103334.1	25.. 57	4278688.2	45416291.7
4..36	12813947.5	203289386.6	26.. 58	4037509.9	41378781.8
5..37	11955891.8	191333494.8	27.. 59	3796843.5	37581938.3
6..38	11277263.5	180056231.3	28.. 60	3554204.6	34027733.7
7..39	10693557.2	169362674.1	29.. 61	3306113.6	30721620.1
8..40	10168551.7	159194122.4	30.. 62	3064537.5	27657082.6
9..41	9679885.3	149514237.1	31.. 63	2835045.6	24822037.0
10..42	9221382.2	140292854.9	32.. 64	2620173.3	22201863.7
11..43	8784511.7	131508343.2	33.. 65	2417940.9	19783922.8
12..44	8363774.6	123144568.6	34.. 66	2228437.7	17555485.1
13..45	7960008.6	115184560.0	35.. 67	2050544.8	15504940.3
14..46	7574265.2	107610294.8	36.. 68	1882937.0	13622003.3
15..47	7204675.2	100405619.6	37.. 69	1724784.8	11897218.5
16..48	6850013.5	93555606.1	38.. 70	1575028.3	10322190.2
17..49	6513832.7	87041773.4	39.. 71	1433986.7	8888203.5
18..50	6194446.5	80847326.9	40.. 72	1294726.5	7593477.0
19..51	5892017.6	74955309.3	41.. 73	1156143.4	6437333.6
20..52	5599113.9	69356195.4	42.. 74	1020530.7	5416802.9
21..53	5315600.0	64040595.4	43.. 75	888510.8	4528292.1

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 &76	768853.7	3759438.4	58 & 90	38150.08	65591.12
45..77	659688.2	3099750.2	59.. 91	26724.96	58866.157
46..78	563200.9	2536549.3	60.. 92	18009.255	40856.902
47..79	480074.2	2056475.14	61.. 93	12167.402	28689.500
48..80	404901.55	1651573.59	62.. 94	8437.244	20252.256
			63.. 95	5913.804	14338.452
49..81	340447.63	1311125.96	64.. 96	4233.491	10104.961
50..82	282385.28	1028740.68	65.. 97	3088.736	7016.225
51..83	232427.73	796312.95	66.. 98	2236.549	4779.676
52..84	188871.52	607441.43	67.. 99	1633.593	3146.0832
53..85	151908.18	455533.25	68..100	1240.0465	1906.0367
54..86	119668.45	335864.80	69..101	892.8936	1013.1431
55..87	92122.88	243741.92	70..102	588.7965	424.3466
56..88	68844.97	174896.95	71..103	325.2746	99.0720
57..89	51155.75	123741.20			

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 &33	20630876.	250149399.5	30 & 63	2863979.8	25116176.8
1..34	16777022.7	233372376.8	31.. 64	2647190.4	22468986.4
2..35	14823396.3	218544980.5	32.. 65	2442696.0	20026300.4
3..36	13319327.5	205229653.0	33.. 66	2251063.5	17775236.9
4..37	12309449.9	192920203.1	34.. 67	2071577.9	15703659.0
5..38	11481659.6	181438543.5	35.. 68	1902451.1	13801207.9
6..39	10826537.5	170612006.0	36.. 69	1743178.8	12058029.1
7..40	10258786.7	160353219.3	37.. 70	1592313.0	10465716.1
8..41	9743990.6	150609228.7	38.. 71	1450180.5	9015535.6
9..42	9268488.3	141340740.4	39.. 72	1310288.7	7705246.9
10..43	8824124.6	132516615.8	40.. 73	1171377.1	6533869.8
11..44	8404286.6	124112329.2	41.. 74	1034785.1	5499084.7
12..45	8000008.6	116112320.6	42.. 75	901467.1	4597617.6
13..46	7613720.7	108498599.9	43.. 76	780231.0	3817386.6
14..47	7244701.2	101253898.7	44.. 77	669596.7	3147789.9
15..48	6892682.5	94361216.2	45.. 78	571666.5	2576123.4
16..49	6557823.9	87803392.3	46.. 79	487294.0	2088829.39
17..50	6237575.0	81565817.3	47.. 80	410902.08	1677927.31
18..51	5933328.0	75632489.3	48.. 81	345258.80	1332668.51
19..52	5636647.9	69993841.4	49.. 82	286302.85	1046365.66
20..53	5353399.0	64640442.4	50.. 83	235588.92	810776.74
21..54	5077439.6	59563002.8	51.. 84	191610.06	619166.68
22..55	4812603.3	54750399.5	52.. 85	154253.00	464913.68
23..56	4556592.7	50193806.8	53.. 86	121632.59	343281.09
24..57	4309255.5	45884551.3	54.. 87	93706.14	249574.95
25..58	4067258.6	41817292.7	55.. 88	70101.38	179473.57
26..59	3825026.7	37992266.0	56.. 89	52146.55	127327.02
27..60	3582029.8	34410236.2	57.. 90	38964.32	88362.70
28..61	3335124.8	31075111.4	58.. 91	27387.93	60974.772
29..62	3094954.8	27980156.6	59.. 92	18533.268	42441.504

TABLE XXVII.   591

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-Three Years—continued.

Ages.	D.	N.	Ages.	D.	N.
60 &93	12588.993	29852.511	66 & 99	1706.106	3301.4961
61..94	8750.380	21102.131	67..100	1297.6470	2003.8491
62..95	6143.624	14958.507	68..101	936.3890	1067.4601
63..96	4401.860	10556.647	69..102	619.2050	448.2551
64..97	3216.666	7339.981	70..103	342.9893	105.2668
65..98	2332.379	5007.602			

Difference of Age Thirty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 &34	19828652.	237920317.1	35 & 69	1761244.5	12215570.2
1..35	16122992.1	221797325.0	36.. 70	1609294.4	10606275.8
2..36	14244026.5	207553298.5	37.. 71	1466095.1	9140180.7
3..37	12794932.7	194758365.8	38.. 72	1325085.5	7815095.2
4..38	11821193.8	182937172.0	39.. 73	1185456.7	6629638.5
5..39	11022764.4	171914407.6	40.. 74	1048419.8	5581218.7
6..40	10386360.3	161528047.3	41.. 75	914058.5	4667160.2
7..41	9830458.0	151697589.3	42.. 76	791608.6	3875551.6
8..42	9329869.0	142367720.3	43.. 77	679505.4	3196046.2
9..43	8869201.4	133498518.9	44.. 78	580253.1	2615793.1
10..44	8442185.0	125056333.9	45.. 79	494618.6	2121174.48
11..45	8038758.6	117017575.3	46.. 80	417081.73	1704092.75
12..46	7651980.6	109365594.7	47.. 81	350375.44	1353717.31
13..47	7282439.9	102083154.8	48.. 82	290348.84	1063368.47
14..48	6930975.2	95152179.6	49,. 83	238857.27	824511.20
15..49	6598672.8	88553506.8	50.. 84	194216.10	630295.10
16..50	6279700.5	82273806.3	51.. 85	156489.59	473805.51
17..51	5974638.4	76299167.9	52.. 86	123510.08	350295.43
18..52	5678181.9	70620986.0	53.. 87	95244.17	255051.26
19..53	5391198.0	65229788.0	54.. 88	71306.17	183745.09
20..54	5113545.1	60116242.9	55.. 89	53098.22	130646.87
21..55	4846263.4	55269979.5	56.. 90	39718.98	90927.89
22..56	4588686.9	50681292.6	57.. 91	27972.46	62955.428
23..57	4339822.8	46341469.8	58.. 92	18993.015	43962.413
24..58	4096315.5	42245154.3	59.. 93	12955.293	31007.120
25..59	3853209.6	38391944.7	60.. 94	9053.573	21953.547
26..60	3608618.4	34783326.3	61.. 95	6371.636	15581.911
27..61	3361234.9	31422091.4	62.. 96	4572.925	11008.986
28..62	3122113.0	28299978.4	63.. 97	3344.596	7664.390
29..63	2892406.3	25407572.1	64.. 98	2428.982	5235.408
30..64	2674207.4	22733364.7	65.. 99	1779.207	3456.2012
31..65	2467872.9	20265491.8	66..100	1355.2473	2100.9539
32..66	2274100.8	17991391.0	67..101	979.8844	1121.0695
33..67	2092611.1	15898779.9	68..102	649.3682	471.7013
34..68	1921965.2	13976814.7	69..103	360.7019	110.9994

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 3 per Cent.)

Difference of Age Thirty-Five Years.

Ages.	-D.	N.	Ages.	D.	N
0 &35	19055658.	226140935.9	35 & 70	1625972.7	107435
1..36	15492827.9	210648108.0	36.. 71	1481730.4	92625
2..37	13683225.3	196964862.7	37.. 72	1339627.3	79225
3..38	12387419.8	184677462.9	38.. 73	1198843.8	67232
4..39	11348728.2	173328734.7	39.. 74	1061021.5	56622
5..40	10574609.1	162754125.6	40.. 75	926102.4	47364
6..41	9952705.3	152801420.3	41.. 76	802665.5	39335
7..42	9412661.5	143388758.8	42.. 77	699414.0	32445
8..43	8927937.9	134460820.9	43.. 78	588839.5	26557
9..44	8485310.6	125975510.3	44.. 79	502047.9	21530
10..45	8075008.7	117900501.6	45.. 80	423350.94	17305
11..46	7689044.8	110211456.8	46.. 81	355644.81	13748
12..47	7319035.1	102892421.7	47.. 82	294651.74	10800
13..48	6967079.7	95925342.0	48.. 83	242232.79	8377
14..49	6635332.1	89290009.9	49.. 84	196910.49	6406
15..50	6318816.9	82971193.0	50.. 85	158617.97	4925
16..51	6014988.1	76956204.9	51.. 86	125300.93	3565
17..52	5717715.7	71238489.2	52.. 87	96714.32	2602
18..53	5428997.1	65809492.1	53.. 88	72476.54	1877
19..54	5149650.7	60659841.4	54.. 89	54010.78	1332
20..55	4880725.0	55779116.4	55.. 90	40443.85	932
21..56	4620781.0	51158335.4	56.. 91	28314.24	642
22..57	4370390.1	46787945.3	57.. 92	19394.384	453
23..58	4125372.3	42662573.0	58.. 93	13276.670	32
24..59	3880737.3	38781835.7	59.. 94	9317.004	22
25..60	3635206.9	35146628.8	60.. 95	6592.409	16
26..61	3386184.4	31760444.4	61.. 96	4742.641	114
27..62	3146555.5	28613889.9	62.. 97	3474.572	75
28..63	2917787.3	25696101.6	63.. 98	2525.585	54
29..64	2700750.3	22995351.3	64.. 99	1852.899	3
30..65	2493059.7	20502291.6	65..100	1413.3160	2
31..66	2297549.4	18204742.2	66..101	1023.3799	1
32..67	2114026.8	16090715.4	67..102	679.5315	4
33..68	1941479.3	14149236.1	68..103	378.2727	1
34..69	1779310.3	12369925.8			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N
0 &36	18310871.	214794771.9	10 & 46	7723717.9	111030
1..37	14882860.2	199911911.7	11.. 47	7354486.7	10368
2..38	13140478.2	186771433.5	12.. 48	7002090.1	96679
3..39	11796320.2	174975113.3	13.. 49	6669896.5	90005
4..40	10887320.1	164087793.3	14.. 50	6353921.4	83658
5..41	10133094.2	153954699.0	15.. 51	6052455.8	77603
6..42	9529713.2	144424985.8	16.. 52	5756330.4	71184
7..43	9007163.7	135417822.1	17.. 53	5466796.2	66386
8..44	8541504.8	126876317.3	18.. 54	5185756.1	61119
9..45	8116258.7	118760058.6	19.. 55	4915186.7	56279

TABLE XXVII.   593

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-Six Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
20 & 56	4653639.2	51625781.6	44 & 80	429709.71	1756690.12
21..57	4400957.2	47224824.4	45.. 81	360990.55	1395699.57
22..58	4154429.0	43070395.4	46.. 82	299083.07	1096616.50
23..59	3908264.8	39162130.6	47.. 83	245822.61	850793.89
24..60	3661177.0	35500953.6	48.. 84	199693.20	651100.69
25..61	3411134.0	32089819.6	49.. 85	160818.49	490282.20
26..62	3169911.6	28919908.0	50.. 86	127005.11	363277.09
27..63	2940630.0	25979278.0	51.. 87	98116.64	265160.45
28..64	2724449.4	23254828.6	52.. 88	73595.27	191565.18
29..65	2517804.8	20737023.8	53.. 89	54897.29	136667.89
30..66	2320997.8	18416026.0	54.. 90	41138.93	95528.96
31..67	2135824.8	16280201.2	55.. 91	29034.62	66494.338
32..68	1961348.3	14318852.9	56.. 92	19774.092	46720.246
33..69	1797376.0	12521476.9	57.. 93	13560.035	33160.211
34..70	1642650.8	10878826.1	58.. 94	9548.128	23612.083
35..71	1497086.6	9381739.5	59.. 95	6784.225	16827.858
36..72	1353914.0	8027825.5	60.. 96	4906.970	11920.888
37..73	1212000.2	6815825.3	61.. 97	3603.526	8317.362
38..74	1073003.4	5742921.9	62.. 98	2623.734	5693.628
39..75	937233.9	4805588.0	63.. 99	1926.590	3767.0384
40..76	813241.6	3992346.4	64..100	1471.8530	2295.1854
41..77	699043.5	3293302.9	65..101	1067.2289	1227.9565
42..78	597426.0	2695876.9	66..102	709.6947	518.2618
43..79	509477.1	2186399.83	67..103	395.8435	122.4183

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	17589954.	203868603.7	21 & 58	4183485.7	43469415.6
1..38	14292529.4	189576074.3	22.. 59	3935792.5	39533623.1
2..39	12615284.0	176960790.3	23.. 60	3687147.2	35846475.9
3..40	11316714.3	165644076.0	24.. 61	3435503.5	32410972.4
4..41	10432748.9	155211327.1	25.. 62	3193267.6	29217704.8
5..42	9702435.7	145506891.4	26.. 63	2962457.6	26255247.2
6..43	9119172.7	136389718.7	27.. 64	2745778.6	23509468.6
7..44	8617301.4	127772417.3	28.. 65	2539898.5	20969570.1
8..45	8170008.8	119602408.5	29.. 66	2344035.0	18625535.1
9..46	7763173.4	111839235.1	30.. 67	2157622.8	16467912.3
10..47	7387651.0	104451584.1	31.. 68	1981572.1	14486340.2
11..48	7036006.5	97415577.6	32.. 69	1815770.2	12670570.0
12..49	6703413.6	90712164.0	33.. 70	1659329.1	11011240.9
13..50	6387020.0	84325144.0	34.. 71	1512442.7	9498798.2
14..51	6086080.5	78239063.5	35.. 72	1367945.5	8130852.7
15..52	5792186.8	72446876.7	36.. 73	1224925.8	6905926.9
16..53	5503716.1	66943160.6	37.. 74	1084778.8	5821148.1
17..54	5221861.5	61721299.1	38.. 75	947817.9	4873330.2
18..55	4949648.2	56771650.9	39.. 76	823016.5	4050313.7
19..56	4686497.3	52085153.6	40.. 77	708254.3	3342059.4
20..57	4432252.3	47652901.3	41.. 78	605770.7	2736288.7

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
42 & 79	516906.4	2219382.30	55 & 92	20134.969	47951.248
43..80	438068.49	1783313.81	56.. 93	13822.667	34128.581
44..81	366412.67	1416901.14	57.. 94	9751.914	24376.667
45..82	303578.62	1113322.52	58.. 95	6952.519	17424.148
46..83	249519.58	863802.94	59.. 96	5049.747	12374.401
47..84	202652.60	661150.34	60.. 97	3728.385	8646.016
48..85	163091.16	498059.18	61.. 98	2721.110	5924.906
49..86	128767.06	369292.12	62.. 99	2001.462	3923.4435
50..87	99451.09	269841.03	63..100	1530.3898	2393.0537
51..88	74662.37	195178.66	64..101	1111.4314	1281.6223
52..89	55744.66	139434.00	65..102	740.1032	541.5191
53..90	41814.16	97619.84	66..103	413.4144	128.1047
54..91	29533.62	68086.217			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 &38	16892246.	193349266.0	33 & 71	1527798.9	9613708.5
1..39	13721290.3	179627975.7	34.. 72	1381977.0	8231731.5
2..40	12102381.1	167525594.6	35.. 73	1237620.5	6994111.0
3..41	10844214.8	156681379.8	36.. 74	1096347.5	5897763.5
4..42	9989334.9	146692024.9	37.. 75	956219.5	4939544.0
5..43	9284454.3	137407570.6	38.. 76	832310.8	4107233.2
6..44	8724462.3	126683108.3	39.. 77	716767.2	3390466.0
7..45	8242508.9	120440599.4	40.. 78	613752.5	2776713.5
8..46	7814585.1	112626014.3	41.. 79	524126.3	2252587.20
9..47	7425389.8	105200624.5	42.. 80	442427.25	1810159.95
10..48	7067734.7	98132889.8	43.. 81	371834.77	1438325.18
11..49	6735383.2	91397006.6	44.. 82	308138.41	1130186.77
12..50	6419115.6	84977891.0	45.. 83	253270.15	876916.62
13..51	6117783.8	78860107.2	46.. 84	205700.34	671216.28
14..52	5824365.6	73035741.6	47.. 85	165508.13	505708.15
15..53	5537999.0	67497742.6	48.. 86	130586.79	375121.36
16..54	5257127.4	62240615.2	49.. 87	100830.80	274290.56
17..55	4984109.8	57256505.4	50.. 88	75677.83	198612.73
18..56	4719355.5	52537149.9	51.. 89	56552.93	142059.80
19..57	4463547.4	48073602.5	52.. 90	42459.59	99600.21
20..58	4213234.4	43860368.1	53.. 91	30018.37	69581.838
21..59	3963320.1	39597048.0	54.. 92	20481.016	49100.822
22..60	3713117.5	36183930.5	55.. 93	14074.930	35025.892
23..61	3459872.9	32724057.6	56.. 94	9940.789	25085.103
24..62	3216080.6	29507977.0	57.. 95	7100.907	17984.196
25..63	2984285.1	26523691.9	58.. 96	5175.015	12809.181
26..64	2766159.9	23757532.0	59.. 97	3836.870	8972.311
27..65	2559782.9	21197749.1	60.. 98	2815.394	6156.917
28..66	2364604.0	18833145.1	61.. 99	2075.743	4081.1738
29..67	2179038.5	16654106.6	62..100	1589.8635	2491.3103
30..68	2001795.8	14652310.8	63..101	1155.6342	1335.6761
31..69	1834492.9	12817817.9	64..102	770.7570	564.9191
32..70	1676310.5	11141507.4	65..103	431.1281	133.7910

TABLE XXVII. 595

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Thirty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 39	16217102.	183223514.3	33 & 72	1396008.5	8330738.3
1..40	13163420.4	170060093.9	34.. 73	1250315.2	7080423.1
2..41	11597078.3	158463015.6	35.. 74	1107709.7	5972713.4
3..42	10383333.5	148079682.1	36.. 75	968438.6	5004274.8
4..43	9559013.0	138520669.1	37.. 76	841444.6	4162830.2
5..44	8882589.8	129638079.3	38.. 77	724861.5	3437968.7
6..45	8345009.0	121293070.3	39.. 78	621129.6	2816839.1
7..46	7883931.2	113409139.1	40.. 79	531032.3	2285806.80
8..47	7474564.6	105934574.5	41.. 80	448606.92	1837199.88
9..48	7103839.2	98830735.3	42.. 81	377256.90	1459942.98
10..49	6766258.1	92064477.2	43.. 82	312698.19	1147244.79
11..50	6450208.2	85614269.0	44.. 83	257074.29	890170.50
12..51	6148526.5	79465742.5	45.. 84	208792.25	681378.25
13..52	5854705.6	73611036.9	46.. 85	167997.25	513381.00
14..53	5568765.6	68042271.3	47.. 86	132522.06	380858.94
15..54	5289874.3	62752397.0	48.. 87	102255.73	278603.21
16..55	5017769.9	57734627.1	49.. 88	76727.72	201875.49
17..56	4752213.8	52982413.3	50.. 89	57322.08	144553.41
18..57	4494842.4	48487570.9	51.. 90	43075.22	101478.19
19..58	4242983.0	44244587.9	52.. 91	30481.72	70996.472
20..59	3991503.1	40253084.8	53.. 92	20817.176	50179.296
21..60	3739087.6	36513997.2	54.. 93	14316.627	35862.469
22..61	3484242.2	33029755.0	55.. 94	10122.207	25740.262
23..62	3238893.5	29790861.5	56.. 95	7238.438	18501.824
24..63	3005605.1	26785256.4	57.. 96	5285.465	13216.359
25..64	2786541.0	23998715.4	58.. 97	3932.049	9284.310
26..65	2578783.5	21419931.9	59.. 98	2897.313	6386.997
27..66	2383116.0	19036815.9	60.. 99	2147.665	4239.3317
28..67	2198159.5	16838656.4	61..100	1648.8687	2590:4630
29..68	2021664.7	14816991.7	62..101	1200.5441	1389.9189
30..69	1853215.6	12963776.1	63..102	801.41C6	588.5083
31..70	169 ;595.0	11270181.1	64..103	448.9847	139.5236
32..71	1543434.3	9726746.8			

Difference of Age Forty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 40	15557760.	173483769.0	12 & 52	5884126.3	74171907.7
1..41	12613816.5	160869952.5	13.. 53	5597774.1	68574133.6
2..42	11104200.1	149765752.4	14.. 54	5319262.5	63254871.1
3..43	9936018.8	139829733.6	15.. 55	5049025.9	58205845.2
4..44	9145264.8	130684468.8	16.. 56	4784307.8	53421537.4
5..45	8496259.1	122188209.7	17.. 57	4526137.5	48895399.9
6..46	7981972.2	114206237.5	18.. 58	4272731.6	44622668.3
7..47	7540893.3	106665344.2	19.. 59	4019686.2	40602982.1
8..48	7150884.5	99514459.7	20.. 60	3765676.1	36837306.0
9..49	6800822.5	92713637.2	21.. 61	3508611.5	33328694.5
10..50	6479294.8	86234342.4	22.. 62	3261706.4	30066988.1
11..51	6178308.4	80056034.0	23.. 63	3026925.0	27040063.1

Preparatory Table for finding the Values of Annuities, &c. on Two Joint]
(Carlisle 3 per Cent.)

Difference of Age Forty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
24 & 64	2806448.3	24233614.8	44 & 84	211928.33	69165£
25..65	2597784.1	21635830.7	45.. 85	170522.43	521136
26..66	2400805.2	19235025.5 ·	46.. 86	134515.07	386621
27..67	2215368.5	17019657.0	47.. 87	103771.12	282850
28..68	2039404.9	14980252.1	48.. 88	77812.02	205038
29..69	1871609.7	13108642.4	49.. 89	58117.33	146920
30..70	1710879.9	11397762.5	50.. 90	43661.07	103259
31..71	1559348.8	9838413.7	51.. 91	30923.69	72333
32..72	1410295.2	8428118.5	52..92	21138.504	51197
33..73	1263009.9	7165108.6	53.. 93	14551.813	36645
34..74	1119071.9	6046036.7	54.. 94	10296.172	26345
35..75	978475.2	5067561.5	55.. 95	7370.539	18978
36..76	850418.4	4217143.1 ·	56.. 96	5387.835	13591
37..77	732816.5	3484326.6 ·	57.. 97	4015.972	9575
38..78	628143.8	2856182.8	58.. 98	2969.186	6605
39..79	537415.2	2318767.62	59.. 99	2210.155	4395
40..80	454517.89	1864249.73	60..100	1706.0007	2689
41..81	382526.28	1481723.45	61..101	1245.1003	1444
42..82	317257.97	1164465.48	62..102	832.5547	615
43..83	260878.44	903587.04	63..103	466.8411	145

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	14908187.	164128120.3	23 & 64	2826355.5	244623:
1..42	12077726.8	152050393.5	24.. 65	2616342.9	218459!
2..43	10625830.5	141424563.0	25.. 66	2418494.5	194275(
3..44	·9505952.5	131918610.5	26.. 67	2231812.6	171956!
4..45	·8747509.4	123171101.1	27.. 68	2055371.0	151403!
5..46	8126642.4	115044458.7	28.. 69	1888033.2	132522!
6..47	7634668.4	107409790.3	29.. 70	1727861.3	115244!
7..48	7214341.0	100195449.3	30.. 71	1575263.4	99491!
8..49	6845861.1	93349588.2	31.. 72	1424836.9	85243:
9..50	6512393.3	86837194.9	32.. 73	1275935.5	72483!
10..51	6206168.9	80631026.0	33.. 74	1130434.1	61179!
11..52	5912627.5	74718398.5	34.. 75	988511.7	512944
12..53	5625903.8	69092494.7	35.. 76	859231.8	427020
13..54	5346971.3	63745523.4	36.. 77	740631.6	352957
14..55	5077076.1	58668447.3	37.. 78	635037.3	289454
15..56	4814109.5	53854337.8	38.. 79	543484.1	235105
16..57	4556704.8	49297633.0	39.. 80	459931.06	189107
17..58	4302480.3	44995152.7	40.. 81	387566.56	15035(
18..59	4047869.1	40947283.6	41.. 82	321689.31	118181
19..60	3792264.7	37155018.9	42.. 83	264682.58	91713
20..61	3533561.2	33621457.7	43.. 84	215064.41	70207
21..62	3284519.3	30336938.4	44.. 85	173083.69	52898
22..63	3048245.1	27288693.3	45.. 86	136536.99	39244

TABLE XXVII. 697

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Forty-One Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
46 & 87	105331.76	287119.57	55 & 96	5486.163	13934.694
47..88	78965.18	208154.39	56.. 97	4093.754	9840.940
48..89	58938.64	149215.75	57.. 98	3032.557	6808.3826
49..90	44266.80	104948.95	58.. 99	2264.982	4543.4006
50..91	31344.28	73604.667	59..100	1755.6400	2787.7606
51..92	21445.003	52159.664	60..101	1288.2421	1499.5185
52..93	14776.430	37383.234	61..102	863.4538	636.0647
53..94	10465.165	26918.069	62..103	484.9835	151.0812
54..95	7497.212	19420.857			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	14274586.	155149733.7	31 & 73	1289091.8	7330660.3
1..43	11557417.7	143592316.0	32.. 74	1142002.8	6188657.5
2..44	10165906.7	133426409.3	33.. 75	998548.3	5190109.2
3..45	9092509.9	124333899.4	34.. 76	868045.2	4322064.0
4..46	8366962.5	115966936.9	35.. 77	746307.2	3573756.8
5..47	7773043.9	108193893.0	36.. 78	641809.7	2931947.1
6..48	7304055.1	100889837.9	37.. 79	549448.4	2382498.72
7..49	6906610.8	93983227.1	38.. 80	465175.55	1917323.17
8..50	6555521.8	87427705.3	39.. 81	392224.99	1525098.18
9..51	6237872.2	81189833.1	40.. 82	325927.97	1199170.21
10..52	5939290.0	75250543.1	41.. 83	268379.56	930790.65
11..53	5653154.2	69597388.9	42.. 84	218200.49	712590.16
12..54	5373840.5	64223548.4	43.. 85	175644.96	536945.20
13..55	5103523.2	59120025.2	44.. 86	138587.78	396357.42
14..56	4840854.5	54279170.7	45.. 87	106915.02	291442.40
15..57	4585088.6	49694082.1	46.. 88	80152.75	211289.65
16..58	4331537.1	45362545.0	47.. 89	59812.09	151477.56
17..59	4076052.1	41286492.9	48.. 90	44892.37	106585.19
18..60	3818853.2	37467639.7	49.. 91	31779.11	74806.076
19..61	3558510.9	33909128.8	50.. 92	21736.671	53069.405
20..62	3307875.5	30601253.3	51.. 93	14990.682	38078.723
21..63	3069565.0	27531688.3	52.. 94	10626.702	27452.021
22..64	2846262.9	24685425.4	53.. 95	7620.266	19831.755
23..65	2634901.6	22050523.8	54.. 96	5580.450	14251.305
24..66	2435772.6	19614751.2	55.. 97	4168.464	10082.841
25..67	2248256.8	17366494.4	56.. 98	3091.292	6991.549
26..68	2070627.5	15295866.9	57.. 99	2313.324	4678.2246
27..69	1902814.2	13393052.7	58..100	1799.1915	2879.0331
28..70	1743023.2	11650029.5	59..101	1325.7259	1553.3072
29..71	1590898.8	10059130.7	60..102	893.3718	659.9354
30..72	1439378.6	8619752.1	61..103	502.9828	156.9526

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint
(Carlisle 3 per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N
0 & 43	13659636.	146539733.4	31 & 74	1153778.2	625851
1.. 44	11057171.4	135482562.0	32.. 75	1008767.3	524974
2.. 45	9723760.6	125758801.4	33.. 76	876858.7	437288
3.. 46	8696954.2	117061847.2	34.. 77	755983.0	361690
4.. 47	8002907.4	109058939.8	35.. 78	648461.3	296844
5.. 48	7436438.5	101622501.3	36.. 79	555308.1	241313
6.. 49	6992498.3	94630003.0	37.. 80	470280.48	194285
7.. 50	6613695.0	88016308.0	38.. 81	396654.32	154619
8.. 51	6279182.6	81737125.4	39.. 82	329845.54	121635
9.. 52	5969630.0	75767495.4	40.. 83	271915.81	94443
10.. 53	5678646.6	70088848.8	41.. 84	221248.23	72318
11.. 54	5399870.1	64688978.7	42.. 85	178206.22	54498
12.. 55	5129169.1	59559809.6	43.. 86	140638.59	40434
13.. 56	4866071.2	54693738.4	44.. 87	108520.89	29582
14.. 57	4610561.3	50083177.1	45.. 88	81357.54	21446
15.. 58	4358518.4	45724658.7	46.. 89	60711.61	15375
16.. 59	4103579.7	41621079.0	47.. 90	45557.67	10819
17.. 60	3845441.7	37775637.3	48.. 91	32228.22	7596
18.. 61	3583460.4	34192176.9	49.. 92	22038.225	5392
19.. 62	3331231.6	30860945.3	50.. 93	15194.565	3873
20.. 63	3091392.5	27769552.8	51.. 94	10780.785	2795
21.. 64	2866170.2	24903382.6	52.. 95	7737.890	2021
22.. 65	2653460.5	22249922.1	53.. 96	5672.044	1454
23.. 66	2453050.4	19796871.7	54.. 97	4240.105	1030
24.. 67	2264318.4	17532553.3	55.. 98	3147.707	715
25.. 68	2085883.9	15446669.4	56.. 99	2358.128	479
26.. 69	1916938.3	13529731.1	57..100	1837.5918	296
27.. 70	1756669.0	11773062.1	58..101	1358.6127	160
28.. 71	1604858.9	10168203.2	59..102	919.3661	68
29.. 72	1453665.2	8714538.0	60..103	520.4108	16
30.. 73	1302248.1	7412289.9			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	13068398.	138284869.5	14 & 58	4382732.4	4608001
1.. 45	10576261.4	127708608.1	15.. 59	4129141.2	4195086
2.. 46	9300743.3	118407864.8	16.. 60	3871411.8	3807945
3.. 47	8318540.8	110089324.0	17.. 61	3608410.0	3447104
4.. 48	7656347.9	102432976.1	18.. 62	3354587.7	3111645
5.. 49	7119234.6	95313741.5	19.. 63	3113220.2	2800323
6.. 50	6695939.9	88617801.6	20.. 64	2886551.4	2511668
7.. 51	6334903.6	82282898.0	21.. 65	2672019.2	2244466
8.. 52	6009163.9	76273734.1	22.. 66	2470328.4	1997434
9.. 53	5707655.1	70566079.0	23.. 67	2280380.2	1769396
10.. 54	5424220.2	65141858.8	24.. 68	2100785.6	1559317
11.. 55	5154013.5	59987845.3	25.. 69	1931062.4	1366211
12.. 56	4890523.9	55097321.4	26.. 70	1769708.3	1189240
13.. 57	4634578.4	50462743.0	27.. 71	1617423.1	1027498

TABLE XXVII. 599

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Forty-Four Years—continued.

Ages.	D.	N.	Ages.	D	N.
28 & 72	1466421.2	8608559.9	44 & 88	82579.54	217684.54
29.. 73	1315173.7	7493386.2	45.. 89	61624.17	156060.37
30.. 74	1165553.6	6327832.6	46.. 90	46242.81	109817.56
31.. 75	1019168.8	5306663.8	47.. 91	32705.83	77111.725
32.. 76	885832.4	4422831.4	48.. 92	22349.668	54762.057
33.. 77	763658.6	3659172.8	49.. 93	15405.362	39356.695
34.. 78	645112.8	3004060.0	50.. 94	10927.411	28429.284
35.. 79	561063.2	2442996.76	51.. 95	7850.066	20579.198
36.. 80	475295.85	1967700.91	52.. 96	5759.595	14819.603
37.. 81	401007.30	1566693.61	53.. 97	4309.699	10509.904
38.. 82	333570.43	1233123.18	54.. 98	3201.805	7308.099
39.. 83	275184.15	957939.03	55.. 99	2401.164	4906.9352
40.. 84	224163.46	733775.57	56..100	1873.1822	3033.7530
41.. 85	160695.34	553080.23	57..101	1387.6097	1646.1433
42.. 86	142689.39	410390.84	58..102	942.1725	703.9708
43.. 87	110126.76	300264.08	59..103	535.5531	168.4177

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D	N.
0 & 45	12500014.	130372604.9	30 & 75	1029570.4	5367149.2
1.. 46	10116157.5	120256447.4	31.. 76	894966.3	4472182.9
2.. 47	8896058.5	111360388.9	32.. 77	771473.7	3700709.2
3.. 48	7958313.0	103402075.9	33.. 78	661764.3	3038944.9
4.. 49	7329763.8	96072312.1	34.. 79	566818.2	2472126.67
5.. 50	6817301.4	89255010.7	35.. 80	480221.66	1991905.01
6.. 51	6413681.7	82841329.0	36.. 81	405283.89	1586621.12
7.. 52	6062488.9	76778840.1	37.. 82	337231.09	1249390.03
8.. 53	5745454.2	71033385.9	38.. 83	278291.77	971098.26
9.. 54	5451929.1	65581456.8	39.. 84	226857.83	744240.43
10.. 55	5177255.0	60404201.8	40.. 85	183076.23	561164.20
11.. 56	4914212.3	55489989.5	41.. 86	144682.42	416481.78
12.. 57	4657867.8	50832121.7	42.. 87	111732.65	304749.13
13.. 58	4405562.7	46426559.0	43.. 88	83801.53	220947.60
14.. 59	4152080.9	42274478.1	44.. 89	62549.77	158397.83
15.. 60	3895527.1	38378951.0	45.. 90	46937.90	111459.93
16.. 61	3632779.4	34746171.6	46.. 91	33197.71	78262.222
17.. 62	3377943.7	31368227.9	47.. 92	22680.884	55581.338
18.. 63	3135047.7	28233180.2	48.. 93	15623.069	39958.269
19.. 64	2906932.6	25326247.6	49.. 94	11079.009	28879.260
20.. 65	2691019.9	22635227.7	50.. 95	7956.852	20922.408
21.. 66	2487606.2	20147621.5	51.. 96	5843.106	15079.302
22.. 67	2396441.9	17851179.6	52.. 97	4376.222	10703.080
23.. 68	2115687.4	15735492.2	53.. 98	3254.358	7448.722
24.. 69	1944858.1	13790634.1	54.. 99	2442.431	5006.2907
25.. 70	1782747.6	12007886.5	55..100	1907.3471	3001.9119
26.. 71	1629428.8	10328457.7	56..101	1414.4850	1684.4379
27.. 72	1477901.5	8900556.2	57..102	962.2813	722.1566
28.. 73	1326714.3	7573841.9	58..103	548.8384	173.3182
29.. 74	1177132.3	6396719.6			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	11956220.	122788765.9	29 & 75	1039789.4	5425289.1
1.. 47	9675993.2	113112772.7	30.. 76	904100.4	4521188.7
2.. 48	8510821.7	104601951.0	31.. 77	779428.6	3741760.1
3.. 49	7618843.6	96983102.4	32.. 78	668536.6	3073223.5
4.. 50	7018901.6	89964200.8	33.. 79	572573.2	2500650.25
5.. 51	6529927.2	83434273.6	34.. 80	485147.47	2015502.78
6.. 52	6137879.2	77296394.4	35.. 81	409484.11	1606018.67
7.. 53	5796438.9	71499955.5	36... 82	340827.54	1265191.13
8.. 54	5468034.7	66011920.8	37.. 83	281345.79	983845.34
9.. 55	5203702.3	60808218.5	38.. 84	229419.70	754425.64
10.. 56	4936372.5	55871846.0	39.. 85	185276.74	569148.90
11.. 57	4680429.3	51191416.7	40.. 86	146588.79	422560.11
12.. 58	4427701.2	46763715.5	41.. 87	113293.29	309266.82
13.. 59	4173709.6	42590005.9	42.. 88	85023.54	224243.28
14.. 60	3917168.9	38672837.0	43.. 89	63475.38	160767.90
15.. 61	3655408.2	35017428.8	44.. 90	47642.90	113125.00
16.. 62	3400756.7	31616672.1	45.. 91	33696.70	79428.299
17.. 63	3156875.3	28459796.8	46.. 92	23021.987	56406.312
18.. 64	2927313.8	25532483.0	47.. 93	15854.598	40551.714
19.. 65	2710020.5	22822462.5	48.. 94	11235.577	29316.137
20.. 66	2505295.5	20317167.0	49.. 95	8067.239	21248.898
21.. 67	2312503.5	18004663.5	50.. 96	5922.576	15326.322
22.. 68	2130589.1	15874074.4	51.. 97	4439.675	10886.647
23.. 69	1958653.7	13915420.7	52.. 98	3304.591	7582.056
24.. 70	1795483.7	12119937.0	53.. 99	2482.519	5099.5365
25.. 71	1641434.5	10478502.5	54..100	1940.1485	3159.3880
26.. 72	1488871.6	8989630.9	55..101	1440.2994	1719.0886
27.. 73	1337100.9	7652530.0	56..102	980.9188	738.1698
28.. 74	1187451.5	6465078.5	57..103	560.5522	177.6176

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 47	11435992.	115519903.6	16 & 63	3178195.2	28683500.1
1.. 48	9256981.9	106262921.7	17.. 64	2947695.0	25735805.1
2.. 49	8147789.8	98115131.9	18.. 65	2729021.1	23006784.0
3.. 50	7295726.0	90819405.9	19.. 66	2522984.8	20483799.2
4.. 51	6723029.3	84096376.6	20.. 67	2328947.7	18154851.5
5.. 52	6249125.9	77847250.7	21.. 68	2145490.8	16009360.7
6.. 53	5868520.9	71978729.8	22.. 69	1972449.4	14036911.3
7.. 54	5536735.0	66441994.8	23.. 70	1808219.8	12228691.5
8.. 55	5238164.0	61203830.8	24.. 71	1653161.1	10575530.4
9.. 56	4961539.3	56242291.5	25.. 72	1499841.7	9075688.7
10.. 57	4701535.3	51540756.2	26.. 73	1347026.0	7728662.7
11.. 58	4449147.8	47091608.4	27.. 74	1196747.9	6531914.8
12.. 59	4194683.1	42896925.3	28.. 75	1048913.5	5483001.3
13.. 60	3937573.9	38959351.4	29.. 76	913074.0	4569927.3
14.. 61	3675716.0	35283635.4	30.. 77	787383.4	3782543.9
15.. 62	3421940.1	31861695.3	31.. 78	675430.1	3107113.8

TABLE XXVII. 601

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Forty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
32 & 79	578432.8	2528680.96	45 & 92	23368.033	57243.196
33.. 80	490073.28	2038607.68	46.. 93	16093.039	41150.157
34.. 81	413684.35	1624923.33	47.. 94	11402.085	29748.072
35.. 82	344359.76	1280563.57	48.. 95	8181.245	21566.827
36.. 83	284346.24	996217.33	49.. 96	6004.742	15562.085
37.. 84	231937.41	764279.92	50.. 97	4500.058	11062.027
38.. 85	187369.05	576910.87	51.. 98	3352.506	7709.521
39.. 86	148350.74	428560.13	52.. 99	2520.838	5188.6834
40.. 87	114786.07	313774.06	53..100	1971.9926	3216.6908
41.. 88	86211.12	227562.94	54..101	1465.0528	1751.6380
42.. 89	64400.98	163161.96	55..102	998.8205	752.8175
43.. 90	48347.91	114814.05	56..103	571.4090	181.4085
44.. 91	34202.82	806112.29			

Difference of Age Forty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 48	10940766.	108551167.6	28 & 76	921086.2	4618326.8
1.. 49	8862122.3	99689045.3	29.. 77	795198.5	3823128.3
2.. 50	7802234.4	91866810.9	30.. 78	682323.4	3140804.9
3.. 51	6988184.6	84898626.3	31.. 79	584397.2	2556407.67
4.. 52	6433924.2	78464702.1	32.. 80	495088.65	2061319.02
5.. 53	5974885.5	72489816.6	33.. 81	417884.57	1643434.45
6.. 54	5605587.4	66884229.2	34.. 82	347891.98	1295542.47
7.. 55	5284647.0	61599582.2	35.. 83	287293.11	1008249.36
8.. 56	4994447.5	56605134.7	36.. 84	234410.93	773838.43
9.. 57	4725552.4	51879582.3	37.. 85	189425.28	584413.15
10.. 58	4469210.9	47410371.4	38.. 86	150026.05	434387.10
11.. 59	4215001.1	43195370.3	39.. 87	116165.76	318221.34
12.. 60	3957360.8	39238009.5	40.. 88	87347.06	230874.28
13.. 61	3694863.4	35543146.1	41.. 89	65300.52	165573.76
14.. 62	3440950.8	32102195.3	42.. 90	49052.94	116520.82
15.. 63	3197992.3	28904203.0	43.. 91	34708.95	81811.867
16.. 64	2967602.3	25936600.7	44.. 92	23719.023	58092.844
17.. 65	2748021.7	23188579.0	45.. 93	16334.935	41757.909
18.. 66	2540674.1	20647904.9	46.. 94	11573.563	30184.346
19.. 67	2345391.9	18302513.0	47.. 95	8302.488	21881.858
20.. 68	2160747.3	16141765.7	48.. 96	6089.600	15792.258
21.. 69	1986245.0	14155520.7	49.. 97	4562.488	11229.770
22.. 70	1820956.0	12334564.7	50.. 98	3398.103	7831.6666
23.. 71	1664887.6	10669677.1	51.. 99	2557.390	5274.2766
24.. 72	1510556.8	9159120.3	52..100	2002.4317	3271.8449
25.. 73	1356950.9	7802169.4	53..101	1489.0990	1782.7459
26.. 74	1205631.1	6596538.3	54..102	1015.9867	766.7592
27.. 75	1057125.3	5539413.0	55..103	581.8372	184.9220

TABLE XXVII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Forty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 49	10474084.	101863546·4	28 & 77	802176.4	3863448.7
1.. 50	8486271.5	93377274.9	29.. 78	689095.8	3174352.9
2.. 51	7473341.8	85903933.1	30.. 79	590361.4	2583991.51
3.. 52	6687677.2	79216255.9	31.. 80	500193.58	2083797.93
4.. 53	6151574.1	73064681.8	32.. 81	422161.17	1661636.76
5.. 54	5707186.5	67357495.3	33.. 82	351424.20	1310212.56
6.. 55	5350364.6	62007130.7	34.. 83	290239.98	1019972.58
7.. 56	5039768.0	56968362.7	35.. 84	236840.29	783132.29
8.. 57	4756847.4	52211515.3	36.. 85	191445.43	591686.86
9.. 58	4492041.2	47719474.1	37.. 86	151672.46	440014.40
10.. 59	4234008.2	43485465.9	38.. 87	117477.60	322536.80
11.. 60	3976529.2	39508936.7	39.. ▓	88336.95	234139.85
12.. 61	3713430.5	35795506.2	40.. 89	66160.93	167978.92
13.. 62	3458875.3	32336630.9	41.. 90	49738.09	118240.83
14.. 63	3215758.9	29120872.0	42.. 91	35215.08	83025.753
15.. 64	2986087.6	26134784.4	43.. 92	24070.013	58955.740
16.. 65	2766580.5	23368203.9	44.. 93	16580.288	42375.452
17.. 66	2558363.3	20809840.6	45.. 94	11747.527	30627.925
18.. 67	2361836.0	18448004.6	46.. 95	8427.351	22200.574
19.. 68	2176003.9	16272000.7	47.. 96	6179.846	16020.728
20.. 69	2000369.1	14271631.6	48.. 97	4626.965	11393.763
21.. 70	1833692.0	12437939.6	49.. 98	3145.244	7948.519
22.. 71	1676614.1	10761325.5	50.. 99	2592.173	5356.3464
23.. 72	1521271.7	9240053.8	51..100	2031.4661	3324.8803
24.. 73	1366645.1	7873408.7	52..101	1512.0844	1812.7959
25.. 74	1214514.2	6656894.5	53..102	1032.6622	780.1337
26.. 75	1064972.2	5593922.3	54..103	591.8369	188.2968
27.. 76	928297.2	4665625.1			

Difference of Age Fifty Years.

Ages.	D.	N.	Ages.	D.	N.
0 &50	10029868.	95442621.3	17 &67	2378280.1	18591646.7
1..51	8128544.2	87314077.1	18..68	2191260.3	16400386.4
2..52	7151971.5	80162105.6	19..69	2014493.3	14385893.1
3..53	6394191.3	73767914.3	20..70	1846731.4	12539161.7
4..54	5875958.7	67891956.6	21..71	1688340.6	10850821.1
5..55	5447337.8	62444617.8	22..72	1531986.7	9318834.4
6..56	5101427.7	57343190.1	23..73	1376339.2	7942495.2
7..57	4799059.4	52544130.7	24..74	1223190.8	6719304.4
8..58	4521789.8	48022340.9	25..75	1072818.9	5646485.5
9..59	4255637.0	43766703.9	26..76	935187.7	4711297.8
10..60	3994451.0	39772242.9	27..77	808456.5	3902841.3
11..61	3731417.4	36040825.5	28..78	695142.6	3207698.7
12..62	3476256.6	32564568.9	29..79	596221.0	2611477.74
13..63	3232510.2	29332058.7	30..80	505298.50	2106179.24
14..64	3002677.0	26329381.7	31..81	426514.14	1679665.10
15..65	2783818.6	23545568.1	32..82	355020.66	1324644.44
16..66	2575641.3	▓▓▓▓▓	33..83	293166.86	1031457.58

TABLE XXVII. 603

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fifty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
34 & 84	239269.65	792187.93	44 & 94	11923.975	31079.202
35..85	193429.51	598758.42	45.. 95	8554.023	22525.179
36..86	153289.99	445468.43	46.. 96	6272.786	16252.393
37..87	118766.84	326701.59	47.. 97	4695.536	11556.857
38..88	89395.19	237306.40	48.. 98	3493.933	8062.924
39..89	66956.17	170350.23	49.. 99	2628.134	5434.7902
40..90	50393.46	119956.77	50..100	2059.0955	3375.6947
41..91	35706.95	84249.821	51..101	1534.0090	1841.6857
42..92	24421.004	59828.817	52..102	1048.6020	793.0837
43..93	16825.640	43003.177	53..103	601.5507	191.5330

Difference of Age Fifty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 &51	9607073.	89273909.0	27 & 78	700584.9	3240264.4
1..52	7778998.7	81494910.3	28.. 79	601452.9	2638811.48
2..53	6838110.2	74656800.1	29.. 80	510313.87	2128497.61
3..54	6107705.6	68549094.5	30.. 81	430867.09	1697630.52
4..55	5608425.8	62940668.7	31.. 82	358681.33	1338949.19
5..56	5193889.2	57746779.5	32.. 83	296187.30	1042761.89
6..57	4858738.3	52888041.2	33.. 84	241699.01	801062.88
7..58	4561915.9	48326125.3	34.. 85	195413.58	605649.30
8..59	4283820.1	44042305.2	35.. 86	154878.65	450770.65
9..60	4014866.1	40027439.1	36.. 87	120033.43	330737.22
10..61	3748243.9	36279195.2	37.. 88	90376.24	240360.98
11..62	3493094.8	32786100.4	38.. 89	67712.28	172648.70
12..63	3248754.1	29537346.3	39.. 90	50999.16	121649.54
13..64	3018318.3	26519028.0	40.. 91	36177.44	85472.096
14..65	2799279.3	23719748.7	41.. 92	24762.107	60709.989
15..66	2591685.1	21128063.6	42.. 93	17070.993	43638.996
16..67	2394341.8	18733721.8	43.. 94	12100.425	31538.571
17..68	2206516.8	16527205.0	44.. 95	8682.505	22856.066
18..69	2028617.2	14498587.8	45.. 96	6367.073	16488.993
19..70	1859770.7	12638817.1	46.. 97	4766.153	11722.840
20..71	1700346.4	10938470.7	47.. 98	3545.712	8177.128
21..72	1542701.6	9395769.1	48.. 99	2665.275	5511.8532
22..73	1386033.4	8009735.7	49..100	2087.6615	3424.1917
23..74	1231867.3	6777868.4	50..101	1554.8726	1869.3191
24..75	1080483.3	5697385.1	51..102	1063.8064	805.5127
25..76	942078.3	4755306.8	52..103	610.8361	194.6766
26..77	814457.5	3940849.3			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 3 per Cent.)

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 &52	9193947.	83352732.3	26 & 78	705785.1	3271657.4
1..53	7437620.6	75915111.7	27.. 79	606161.5	2665495.88
2..54	6531735.2	69383376.5	28.. 80	514791.88	2150704.00
3..55	5829621.3	63553755.2	29.. 81	435143.69	1715560.31
4..56	5347482.2	58206273.0	30.. 82	362342.00	1353218.31
5..57	4946801.1	53259471.9	31.. 83	299241.34	1053976.97
6..58	4618645.8	48640826.1	32.. 84	244172.53	809804.44
7..59	4321834.3	44318991.8	33.. 85	197397.66	612406.78
8..60	4041454.7	40277537.1	34.. 86	156467.29	455939.49
9..61	3767391.3	36510145.8	35.. 87	121277.41	334662.08
0..62	3508846.5	33001299.3	36.. 88	91340.07	243322.01
11..63	3264490.2	29736809.1	37.. 89	68455.39	174866.62
12..64	3033485.8	26703323.3	38.: 90	51575.09	123291.53
13..65	2813861.1	23889462.2	39.. 91	36612.29	86679.242
14..66	2606083.4	21283378.8	40.. 92	25088.379	61590.863
15..67	2409256.3	18874122.5	41.. 93	17309.435	44281.428
16..68	2221418.5	16652704.0	42.. 94	12276.874	32004.554
17..69	2042741.5	14609962.5	43.. 95	8810.987	23193.567
18..70	1872810.0	12737152.5	44.. 96	6462.707	16730.860
19..71	1712352.1	11024800.4	45.. 97	4837.794	11893.066
20..72	1553671.7	9471128.7	46.. 98	3599.037	8294.029
21..73	1395727.5	8075401.2	47.. 99	2704.772	5589.2574
22..74	1240544.0	6834857.2	48..100	2117.1642	3472.0932
23..75	1088147.5	5746709.7	49..101	1576.4436	1895.6496
24..76	948808.6	4797901.1	50..102	1078.2749	817.3747
25..77	820458.6	3977442.5	51..103	619.6931	197.6816

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 &53	8790475.	77674286.6	19 & 72	1564641.9	9545384.0
1..54	7104385.1	70569901.5	20.. 73	1405652.5	8139731.5
2..55	6234344.9	64335556.6	21.. 74	1249220.6	6890510.9
3..56	5558386.1	58777170.5	22.. 75	1095811.8	5794699.1
4..57	5093087.3	53684083.2	23.. 76	955538.8	4839160.3
5..58	4702357.0	48981726.2	24.. 77	826319.9	4012840.4
6..59	4375578.7	44606147.5	25.. 78	710985.3	3301855.1
7..60	4077318.2	40528829.3	26.. 79	610661.0	2691194.14
8..61	3792340.9	36736488.4	27.. 80	518822.09	2172372.05
9..62	3526771.0	33209717.4	28.. 81	438962.08	1733409.97
10..63	3279211.1	29930506.3	29.. 82	365938.45	1367471.52
11..64	3048179.3	26882327.0	30.. 83	302295.37	1065176.15
12..65	2828001.1	24054325.9	31.. 84	246690.23	818485.92
13..66	2619658.8	21434667.1	32.. 85	199417.81	619068.11
14..67	2422641.0	19012026.1	33.. 86	158055.94	461012.17
15..68	2235255.9	16776770.2	34.. 87	122521.41	338490.76
16..69	2056537.2	14720233.0	35.. 88	92286.68	246204.08
17..70	1885849.3	12834383.7	36.. 89	69185.43	177018.65
18..71	1724357.8	11110025.9	37.. 90	52141.10	124877.55

TABLE XXVII. 505

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fifty-Three Years—continued.

Age.	D.	N.	Ages.	D.	N.
38 & 91	37025.74	87851.812	45 & 98	3653.134	8414.616
39..92	25389.934	62461.878	46.. 99	2745.451	5669.1650
40..93	17537.508	44924.370	47..100	2148.5400	3520.6250
41..94	12448.352	32476.018	48..101	1598.7217	1921.9033
42..95	8939.470	23536.548	49..102	1093.2340	828.6693
43..96	6558.341	16978.207	50..103	628.1214	200.5479
44..97	4910.457	12067.750			

Difference of Age Fifty-Four Years.

Age.	D.	N.	Ages.	D.	N.
0 & 54	8396626.	72233574.5	25 & 79	615160.3	2715888.53
1..55	6780921.7	65452652.8	26.. 80	522673.18	2193215.35
2..56	5944279.0	59508373.8	27.. 81	442398.63	1750816.72
3..57	5293958.0	54214415.8	28.. 82	369149.56	1381667.16
4..58	4841414.5	49373001.3	29.. 83	305295.81	1076371.35
5..59	4454880.4	44918116.9	30.. 84	249207.92	827163.43
6..60	4125022.0	40790094.9	31.. 85	201474.04	625689.39
7..61	3825993.9	36964101.0	32.. 86	159673.47	466015.92
8..62	3550127.2	33413973.8	33.. 87	123765.39	342250.53
9..63	3295962.4	30118011.4	34.. 88	93233.31	249017.22
10..64	3061924.7	27056086.7	35.. 89	69902.45	179114.77
11..65	2841699.3	24214387.4	36.. 90	52697.15	126417.62
12..66	2632822.9	21581564.5	37.. 91	37432.07	88985.551
13..67	2435261.0	19146303.5	38.. 92	25676.658	63308.893
14..68	2247674.0	16898629.5	39.. 93	17748.305	45560.588
15..69	2069347.4	14829282.1	40.. 94	12612.375	32948.213
16..70	1898585.4	12930696.7	41.. 95	9064.334	23883.879
17..71	1736363.5	11194333.2	42.. 96	6653.975	17229.904
18..72	1575612.0	9618721.2	43.. 97	4983.121	12246.783
19..73	1415577.4	8203143.8	44.. 98	3703.004	8538.779
20..74	1258103.7	6945040.1	45.. 99	2786.718	5752.0609
21..75	1103476.1	5841564.0	46..100	2180.8523	3571.2086
22..76	962269.2	4879294.8	47..101	1622.4143	1948.7943
23..77	832181.3	4047113.5	48..102	1106.6835	840.1108
24..78	716064.7	3331048.8	49..103	636.8353	203.2755

Difference of Age Fifty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 55	8014327.	67023497.2	8 & 63	3317790.1	30301762.6
1..56	6465425.3	60358071.9	9.. 64	3077566.1	27224196.5
2..57	5661492.8	54896579.1	10.. 65	2854513.6	24369682.9
3..58	5032359.2	49864219.9	11.. 66	2645575.6	21724107.3
4..59	4586623.7	45277596.2	12.. 67	2447498.4	19276608.9
5..60	4202840.7	41074755.5	13.. 68	2259382.4	17017226.5
6..61	3873572.1	37201183.4	14.. 69	2080843.7	14936382.8
7..62	3581630.7	33619552.7	15.. 70	1910411.8	13025971.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint l
(Carlisle 3 per Cent.)

Difference of Age Fifty-Five Years—*continued.*

Ages	D.	N.	Ages	D.	N
16 &71	1748090.1	11277880.9	33 & 88	94179.92	251786
17..72	1566582.0	9691296.9	34.. 89	70619.46	181161
18..73	1425502.4	8265796.5	35.. 90	53243.29	127917
19..74	1266987.0	6998809.5	36.. 91	37831.27	90086
20..75	1111322.9	5887486.6	37.. 92	25958.440	64128
21..76	968999.5	4918487.1	38.. 93	17948.733	46179
22..77	838042.7	4060444.4	39.. 94	12763.973	33413
23..78	721144.1	3359300.3	40.. 95	9183.768	24231
24..79	619555.1	2739745.16	41.. 96	6746.916	17484
25..80	526324.27	2213220.89	42.. 97	5056.785	12426
26..81	445682.44	1767538.45	43.. 98	3762.874	8660
27..82	372039.56	1395498.89	44.. 99	2628.574	5837
28..83	307974.79	1087524.10	45..100	2213.6331	3823
29..84	251681.45	835842.65	46..101	1646.6141	1977
30..85	203530.26	632312.39	47..102	1125.1138	▮
31..86	161319.89	470992.50	48..103	645.8350	200
32..87	125032.00	345960.50			

Difference of Age Fifty-Six Years.

Ages	D.	N.	Ages	D.	N
0 &56	7641444.	62038381.7	24 & 80	530285.79	2232533
1..57	6157846.8	55680534.9	25.. 81	448966.25	1783566
2..58	5381732.4	50498802.5	26.. 82	374801.12	1408765
3..59	4767519.3	45731283.2	27.. 83	310385.87	1098379
4..60	4327126.6	41404156.6	28.. 84	253889.96	844489
5..61	3943779.2	37460377.4	29.. 85	205550.41	638939
6..62	3626170.3	33634207.1	30.. 86	162966.30	475979
7..63	3347231.8	30486975.3	31.. 87	126321.22	349651
8..64	3097947.5	27389027.8	32.. 88	95143.75	254507
9..65	2869095.5	24519932.3	33.. 89	71336.47	183171
10..66	2657505.6	21862426.7	34.. 90	53789.43	129381
11..67	2459353.4	19403073.3	35.. 91	39223.34	91158
12..68	2270736.1	17132337.2	36.. 92	26235.277	64923
13..69	2091682.9	15040654.3	37.. 93	18145.706	46777
14..70	1921025.2	13119629.1	38.. 94	12908.113	33869
15..71	1758979.0	11360650.1	39.. 95	9294.155	24575
16..72	1597397.0	9763253.1	40.. 96	6835.816	17739
17..73	1435427.3	8327825.8	41.. 97	5126.403	12613
18..74	1275870.1	7051955.7	42.. 98	3817.746	8795
19..75	1119169.7	5932786.0	43.. 99	2870.432	5924
20..76	975890.0	4956896.0	44..100	2246.8820	3678
21..77	843904.1	4112991.9	45..101	1671.5675	2006
22..78	726223.5	3386768.4	46..102	1142.0346	864
23..79	623949.9	2762818.46	47..103	655.4061	209

TABLE XXVII. 64

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives, (Carlisle 3 per Cent.)

Difference of Age Fifty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 57	7277919.	57271495.4	24 & 81	452173.71	1799024.69
1.. 58	5853559.4	51417936.0	25.. 82	377562.67	1421462.02
2.. 59	5098506.2	46319429.8	26.. 83	312689.78	1108772.24
3.. 60	4497787.9	41821641.9	27.. 84	255877.62	852894.62
4.. 61	4060404.2	37761237.7	28.. 85	207354.11	645540.51
5.. 62	3691893.2	34069344.5	29.. 86	164583.82	480956.69
6.. 63	3388856.6	30680487.9	30.. 87	127610.44	353346.25
7.. 64	3125438.4	27555049.5	31.. 88	96124.80	257221.45
8.. 65	2888096.2	24666953.3	32.. 89	72066.53	185154.92
9.. 66	2671081.0	21995872.3	33.. 90	54335.57	130819.35
10.. 67	2470443.7	19525428.6	34.. 91	38615.41	92203.936
11.. 68	2281735.0	17243693.6	35.. 92	26307.170	65696.766
12.. 69	2102194.2	15141499.4	36.. 93	18339.223	47357.543
13.. 70	1931031.9	13210467.5	37.. 94	13049.770	34307.773
14.. 71	1768751.1	11441716.4	38.. 95	9399.111	24908.662
15.. 72	1607246.7	9834469.7	39.. 96	6917.980	17990.682
16.. 73	1445121.5	8389348.2	40.. 97	5193.949	12796.733
17.. 74	1284753.2	7104595.0	41.. 98	3871.070	8925.663
18.. 75	1127016.4	5977578.6	42.. 99	2912.288	6013.3747
19.. 76	982780.5	4994798.1	43..100	2280.1309	3733.2438
20.. 77	849905.0	4144893.1	44..101	1696.6747	2036.5691
21.. 78	731302.7	3413590.4	45..102	1159.2007	877.3684
22.. 79	628344.7	2785245.72	46..103	665.2629	212.1055
23.. 80	534047.32	2251198.40			

Difference of Age Fifty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 58	6918283.	52720967.7	23 & 81	455381.15	1813957.13
1.. 59	5545502.0	47175465.7	24.. 82	380260.00	1433697.13
2.. 60	4810048.5	42365417.2	25.. 83	314993.70	1118703.43
3.. 61	4220545.8	38144871.4	26.. 84	257776.93	860926.50
4.. 62	3801069.4	34343802.0	27.. 85	208977.45	651949.05
5.. 63	3450278.3	30893523.7	28.. 86	166028.05	485921.00
6.. 64	3164304.9	27729218.8	29.. 87	128877.04	357043.96
7.. 65	2913725.0	24815493.8	30.. 88	97105.83	259938.13
8.. 66	2688770.3	22126723.5	31.. 89	72809.62	187128.51
9.. 67	2483063.6	19643659.9	32.. 90	54631.62	132236.89
10.. 68	2292024.2	17351635.7	33.. 91	39007.43	93229.407
11.. 69	2112376.7	15239259.0	34.. 92	26779.064	66450.343
12.. 70	1940735.8	13298523.2	35.. 93	18529.285	47921.058
13.. 71	1777964.8	11520558.4	36.. 94	13188.941	34732.117
14.. 72	1616175.9	9904382.5	37.. 95	9502.260	25229.857
15.. 73	1454123.3	8450259.2	38.. 96	6996.104	18233.753
16.. 74	1293429.7	7156829.5	39.. 97	5256.379	12977.374
17.. 75	1134863.1	6021966.4	40.. 98	3922.076	9055.298
18.. 76	989671.0	5032295.4	41.. 99	2952.966	6102.3318
19.. 77	855906.0	4176389.4	42..100	2313.3800	3788.9518
20.. 78	736503.0	3439886.4	43..101	1721.7819	2067.1699
21.. 79	632739.3	2807147.14	44..102	1176.6120	890.5579
22.. 80	537808.86	2269338.28	45..103	675.2625	215.2954

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 59	6554192.	46391878.2	23 & 82	382957.34	1445511.16
1.. 60	5231754.6	43160123.6	24.. 83	317244.04	1125267.12
2.. 61	4513558.8	38646564.8	25.. 84	259676.25	868590.87
3.. 62	3950982.9	34695581.9	26.. 85	210528.63	658062.24
4.. 63	3552309.5	31143272.4	27.. 86	167327.65	490734.39
5.. 64	3221656.8	27921615.6	28.. 87	130007.95	360726.44
6.. 65	2949958.7	24971656.9	29.. 88	98069.66	262656.78
7.. 66	2712630.3	22259026.6	30.. 89	73552.70	189104.08
8.. 67	2499507.7	19759518.9	31.. 90	55457.63	133646.45
9.. 68	2303732.7	17455786.2	32.. 91	39406.67	94239.783
10.. 69	2121902.2	15333884.0	33.. 92	27050.957	67188.826
11.. 70	1950136.2	13383747.8	34.. 93	18719.346	48469.480
12.. 71	1786899.3	11596848.5	35.. 94	13325.626	35143.854
13.. 72	1624594.7	9972253.8	36.. 95	9603.598	25540.256
14.. 73	1462201.8	8510052.0	37.. 96	7072.881	18467.375
15.. 74	1301466.6	7208565.4	38.. 97	5315.739	13151.636
16.. 75	1142527.5	6066037.9	39.. 98	3969.219	9162.417
17.. 76	996561.5	5069476.4	40.. 99	2991.876	6190.5412
18.. 77	861906.9	4207569.5	41..100	2345.6924	3844.8488
19.. 78	741703.3	3465866.2	42..101	1746.8689	2097.9599
20.. 79	637238.7	2828627.50	43..102	1194.0233	903.9366
21.. 80	541570.38	2287057.12	44..103	685.4050	218.5316
22.. 81	438588.62	1828468.50			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 60	6183376.	44292291.1	22 & 82	385654.68	1456994.42
1.. 61	4900271.2	39509959.9	23.. 83	319494.37	1137500.05
2.. 62	4225281.3	35157678.6	24.. 84	261531.40	875968.65
3.. 63	3692412.1	31465266.5	25.. 85	212079.83	663888.82
4.. 64	3316927.1	28148339.4	26.. 86	168569.88	495318.94
5.. 65	3003420.6	25144913.8	27.. 87	131025.75	364293.19
6.. 66	2746363.4	22398550.4	28.. 88	98930.23	265362.96
7.. 67	2521688.2	19876862.2	29.. 89	74282.75	191080.21
8.. 68	2318989.3	17557872.9	30.. 90	56023.62	135056.59
9.. 69	2132741.6	15425131.3	31.. 91	39813.00	95243.589
10.. 70	1958930.1	13466201.2	32.. 92	27327.795	67915.794
11.. 71	1795554.6	11670646.6	33.. 93	18909.407	48606.387
12.. 72	1632758.5	10037888.1	34.. 94	13462.313	35544.074
13.. 73	1469010.6	8568069.5	35.. 95	9703.126	25840.948
14.. 74	1308717.1	7259352.4	36.. 96	7148.309	18692.639
15.. 75	1149644.4	6109700.0	37.. 97	5374.075	13318.564
16.. 76	1003291.7	5106416.3	38.. 98	4014.042	9304.522
17.. 77	867900.0	4238508.3	39.. 99	3027.837	6276.6850
18.. 78	746903.5	3491604.8	40..100	2276.6000	3900.0000
19.. 79	641738.2	2849866.6	41..101	1771.2888	2198.7962
20.. 80	545421.47	2304445.16	42..102	1211.4347	917.3615
21.. 81	461796.06	1842649.10	43..103	695.5476	221.8139

TABLE XXVIII.   ·   **609**

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference 0.

Common Age.	D.	N.	Common Age.	D.	N.
0	100000000.0	962884709.7	52	3056167.8	29972092.1
1	69167652.6	893717057.1	53	2863729.3	27108362.8
2	56489384.5	837227672.6	54	2678249.1	24430113.7
3	47722758.7	789504913.9	55	2500976.3	21929137.4
4	42676272.3	746828641.6	56	2330560.6	19598576.8
5	38898494.3	707930147.3	57	2166995.8	17431581.0
6	36256890.5	671673256.8	58	2007125.0	15424456.0
7	34175344.0	637497712.8	59	1846504.0	13577952.0
8	32441527.3	605056185.5	60	1684602.2	11893349.8
9	30933399.9	574122785.6	61	1520445.0	10372904.8
10	29584316.2	544538469.4	62	1365770.8	9007134.0
11	28327821.0	516210648.4	63	1222705.9	7784428.1
12	27106643.9	489104004.5	64	1092713.6	6691714.5
13	25928748.8	463175255.7	65	973454.6	5718259.9
14	24792937.7	438382298.0	66	864836.3	4853423.6
15	23690538.8	414691709.2	67	766072.1	4087351.5
16	22606941.4	392084767.8	68	675915.0	3411436.5
17	21550391.8	370534376.0	69	593797.7	2817638.8
18	20534696.0	349999680.0	70	504346.1	2313292.7
19	19564974.3	330434705.7	71	450776.4 ·	1862516.3
20	18639213.5	311795492.2	72	385779.4	1476736.9
21	17755487.0	294040005.2	73	323676.1	1153060.8
22	16917583.4	277122421.8	74	265779.5	887281.3
23	16117644.4	261004777.4	75	212570.6	674710.7
24	15354006.6	245650770.8	.76	168019.0	506691.7
25	14625077.4	231025693.4	77	130626.6	376065.1
26	13924559.6	217101133.8	78	100548.2	275516.9
27	13256156.1	203844977.7	79	77154.8	198362.080
28	12609670.0	191235307.7	80	57937.240	140424.840
29	11972221.2	179263086.5	81	43179.997	97244.843
30	11341112.8	167921973.7	82	31301.658	65943.185
31	10737310.5	157184663.2	83	22331.972	43611.213
32	10163537.1	147021126.1	84	15556.859	28054.354
33	9621895.3	137399230.8	85	10636.293	17418.061
34	9110574.7	128288656.1	86	6989.757	10428.304
35	8624647.8	119664008.3	87	4393.119	6035.185
36	8162920.9	111501087.4	88	2607.504	3427.681
37	7721311.8	103779775.6	89	1533.437	1894.244
38	7299121.4	96480654.2	90	911.896	982.348
39	6893668.6	89584935.6	91	481.734	500.61450
40	6505161.8	83079823.8	92	237.47085	263.14365
41	6122766.9	76957056.9	93	118.94192	144.20173
42	5753858.7	71203198.2	94	63.05610	81.14563
43	5400631.0	65802567.2	95	34.26962	46.87601
44	5066932.1	60735635.1	96	19.46176	27.41425
45	4751770.5	55983864.6	97	11.51678	15.89747
46	4456114.9	51527749.7	98	6.73134	9.16613
47	4178788.3	47348961.4	99	4.01504	5.1510879
48	3920416.7	43428544.7	100	2.5968689	2.5542190
49	3693010.7	39745534.0	101	1.5178216	1.0363974
50	3461747.6	36283786.4	102	.7482115	.2881859
51	3255526.5	33028259.9	103	.2602474	.0279385

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3 per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 59	6554192.	48391878.2	23 & 82	382957.34	1445511.16
1.. 60	5231754.6	43160123.6	24.. 83	317244.04	1126267.13
2.. 61	4518558.8	38646564.8	25.. 84	259676.25	868590.87
3.. 62	3950982.9	34695581.9	26.. 85	210528.63	658062.24
4.. 63	3552309.5	31143272.4	27.. 86	167327.65	490734.39
5.. 64	3221656.8	27921615.6	28.. 87	130007.95	360726.44
6.. 65	2949958.7	24971656.9	29.. 88	98069.66	262656.78
7.. 66	2712630.3	22259026.6	30.. 89	73552.70	189104.08
8.. 67	2499507.7	19759518.9	31.. 90	55457.63	133646.45
9.. 68	2303732.7	17455786.2	32.. 91	39406.67	94239.783
10.. 69	2121902.2	15333884.0	33.. 92	27050.957	67198.825
11.. 70	1950136.2	13383747.8	34.. 93	18719.346	48469.480
12.. 71	1786899.3	11596848.5	35.. 94	13325.626	35143.854
13.. 72	1624594.7	9972253.8	36.. 95		25540.256
14.. 73	1462201.8	8510052.0	37.. 96	7072.881	18467.375
15.. 74	1301466.6	7208565.4	38.. 97	5315.739	13151.636
16.. 75	1142527.5	6066037.9	39.. 98	3969.219	9182.417
17.. 76	996561.5	5069476.4	40.. 99	2991.876	6190.5412
18.. 77	861906.9	4207569.5	41..100	2345.6924	3844.8488
19.. 78	741703.3	3465866.2	42..101	1746.8689	2097.9599
20.. 79	637238.7	2828627.50	43..102	1194.0233	903.9366
21.. 80	541570.38	2287057.12	44..103	685.4050	218.5316
22.. 81	458588.62	1828468.50			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 60	6183376.	44292231.1	22 & 82	385654.68	1456994.42
1.. 61	4909271.3	38102959.9	23.. 83	319494.37	1137500.05
2.. 62	4229281.1	35157678.6	24.. 84	261531.40	875968.65
3.. 63	3692412.1	31465266.5	25.. 85	212079.83	663888.82
4.. 64	3316927.1	28148339.4	26.. 86	168569.88	495318.94
5.. 65	3003425.6	25144913.8	27.. 87	131025.75	364293.19
6.. 66	2746363.4	22598550.4	28.. 88	98930.23	265362.96
7.. 67	2521688.2	19876862.2	29.. 89	74282.75	191080.21
8.. 68	2318989.3	17557872.9	30.. 90	56023.62	135056.59
9.. 69	2132741.6	15425131.3	31.. 91	39813.00	95243.589
10.. 70	1958930.1	13466201.2	32.. 92	27327.795	67915.794
11.. 71	1795554.6	11670646.6	33.. 93	18909.407	49006.387
12.. 72	1632758.5	10037888.1	34.. 94	13462.313	35544.074
13.. 73	1469818.6	8568069.5	35.. 95	9703.126	25840.948
14.. 74	1306717.1	7259352.4	36.. 96	7148.309	18692.639
15.. 75	1149644.4	6109708.0	37.. 97	5374.075	13318.564
16.. 76	1003291.7	5106416.3	38.. 98	4014.042	9304.522
17.. 77	867908.0	4238508.3	39.. 99	3027.837	6276.6850
18.. 78	746903.5	3491604.8	40..100	2376.6000	3900.0850
19.. 79	641738.2	2849866.6	41..101	1771.2888	2128.7962
20.. 80	545421.47	2304445.16	42..102	1211.4347	917.3615
21.. 81	461796.06	1842649.10	43..103	695.5476	221.8140

TABLE XXVIII.   ·   609

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference 0.

Common Age.	D.	N.	Common Age.	D.	N.
0	100000000.0	962884709.7	52	3056167.8	29972092.1
1	69167652.6	893717057.1	53	2863729.3	27108362.8
2	56489384.5	837227672.6	54	2678249.1	24430113.7
3	47722738.7	789504913.9	55	2500976.3	21929137.4
4	42676272.3	746828641.6	56	2330560.6	19598576.8
5	38898494.3	707930147.3	57	2166995.8	17431581.0
6	36256890.5	671673256.8	58	2007125.0	15424456.0
7	34175344.0	637497712.8	59	1846504.0	13577952.0
8	32441527.3	605056185.5	60	1684602.2	11893349.8
9	30933399.9	574122785.6	61	1520445.0	10372904.8
10	29584316.2	544533469.4	62	1365770.8	9007134.0
11	28327821.0	516210648.4	63	1222705.9	7784428.1
12	27106643.9	489104004.5	64	1092713.6	6691714.5
13	25928748.8	463175255.7	65	973454.6	5718259.9
14	24792957.7	438382298.0	66	864836.3	4853423.6
15	23690558.8	414691709.2	67	766072.1	4087351.5
16	22606941.4	392084767.8	68	675915.0	3411436.5
17	21550391.8	370534376.0	69	593797.7	2817638.8
18	20534696.0	349999680.0	70	504346.1	2313292.7
19	19564974.3	330434705.7	71	450776.4 ·	1862516.3
20	18639213.5	311795492.2	72	385779.4	1476736.9
21	17755487.0	294040005.2	73	323676.1	1153060.8
22	16917583.4	277122421.8	74	265779.5	887281.3
23	16117644.4	261004777.4	75	212570.6	674710.7
24	15354006.6	245650770.8	76	168019.0	506691.7
25	14625077.4	231025693.4	77	130626.6	376065.1
26	13924559.6	217101133.8	78	100548.2	275516.9
27	13256156.1	203844977.7	79	77154.8	198362.080
28	12609670.0	191235307.7	80	57937.240	140424.840
29	11972221.2	179263086.5	81	43179.997	97244.843
30	11341112.8	167921973.7	82	31301.658	65943.185
31	10737310.5	157184663.2	83	22331.972	43611.213
32	10163537.1	147021126.1	84	15556.859	28054.354
33	9621895.3	137399230.8	85	10636.293	17418.061
34	9110574.7	128288656.1	86	6989.757	10428.304
35	8624647.8	119664008.3	87	4393.119	6035.185
36	8162920.9	111501087.4	88	2607.504	3427.681
37	7721311.8	103779775.6	89	1533.437	1894.244
38	7299121.4	96480654.2	90	911.896	982.348
39	6895668.6	89584935.6	91	481.734	500.61450
40	6505161.8	83079823.8	92	237.47085	263.14365
41	6122766.9	76957056.9	93	118.94192	144.20173
42	5753858.7	71203198.2	94	63.05610	81.14563
43	5400631.0	65802567.2	95	34.26962	46.87601
44	5066932.1	60735635.1	96	19.46176	27.41425
45	4751770.5	55983864.6	97	11.51678	15.89747
46	4456114.9	51527749.7	98	6.73134	9.16613
47	4178788.3	47348961.4	99	4.01504	5.1510879
48	3920416.7	43428544.7	100	2.5968689	2.5542190
49	3693010.7	39745534.0	101	1.5178216	1.0363974
50	3461747.6	36283786.4	102	.7482115	.2881859
51	3255526.5	33028259.9	103	.2602474	.0279385

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3¼ per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	81748792.	911585841.1	52 & 53	2907933.1	28011077.1
1.. 2	61441918.3	850143922.8	53.. 54	2722207.8	25288869.3
2.. 3	51035928.0	799107994.8	54.. 55	2543959.0	22744910.3
3.. 4	44359417.7	754748577.1	55.. 56	2373093.3	20371817.0
4.. 5	40048795.5	714699781.6	56.. 57	2208966.1	18162850.9
5.. 6	36914033.0	677785748.6	57.. 58	2049963.2	16112887.7
6.. 7	34600535.5	643185213.1	58.. 59	1892309.5	14220578.2
7.. 8	32729411.0	610455802.1	59.. 60	1733619.0	12486959.2
8.. 9	31138256.9	579317545.2	60.. 61	1573127.3	10913831.9
9..10	29735443.5	549582101.7	61.. 62	1416459.4	9497372.5
10..11	28455562.7	521126539.0	62.. 63	1270222.4	8227150.1
11..12	27237941.7	493888597.3	63.. 64	1136171.8	7090978.3
12..13	26059044.0	467829553.3	64.. 65	1013773.5	6077204.8
13..14	24922108.1	442907445.2	65.. 66	901892.3	5175312.5
14..15	23822203.2	419085242.0	66.. 67	800076.7	4375235.8
15..16	22747760.9	396337481.1	67.. 68	707311.6	3667924.2
16..17	21695932.3	374641548.8	68.. 69	622723.4	3045200.8
17..18	20677667.6	353963881.2	69.. 70	530393.1	2514807.7
18..19	19702149.3	334261731.9	70.. 71	475324.7	2039483.0
19..20	18770820.5	315490911.4	71.. 72	409902.0	1629581.0
20..21	17881746.6	297609165.8	72.. 73	347339.8	1282241.2
21..22	17035907.9	280573257.9	73.. 74	288300.8	993940.4
22..23	16231168.0	264342089.9	74.. 75	233637.4	760303.0
23..24	15462918.7	248879171.2	75.. 76	185763.6	574539.4
24..25	14729560.0	234149611.2	76.. 77	145621.4	428918.0
25..26	14027156.5	220122454.7	77.. 78	112650.4	316267.6
26..27	13354553.4	206767901.3	78.. 79	86576.2	229691.4
27..28	12708388.8	194059512.5	79.. 80	65718.94	163972.437
28..29	12077277.7	181982234.8	80.. 81	49164.322	114808.115
29..30	11453679.8	170528555.0	81.. 82	36137.224	78670.891
30..31	10846894.5	159681660.5	82.. 83	25988.250	52682.641
31..32	10268331.9	149413325.6	83.. 84	18321.216	34361.425
32..33	9720364.9	139692960.7	84.. 85	12644.043	21717.382
33..34	9203076.4	130489884.3	85.. 86	8475.318	13242.064
34..35	8713114.1	121776770.2	86.. 87	5446.873	7795.191
35..36	8247518.7	113529251.5	87.. 88	3326.816	4468.375
36..37	7803656.8	105725594.7	88.. 89	1965.511	2502.864
37..38	7379223.4	98346371.3	89.. 90	1162.346	1340.513
38..39	6973540.2	91372831.1	90.. 91	651.487	689.03077
39..40	6583352.1	84789479.0	91.. 92	332.4592	356.57157
40..41	6203442.2	78586036.8	92.. 93	165.19711	191.37446
41..42	5834226.5	72751810.3	93.. 94	85.12573	106.24873
42..43	5479383.4	67272426.9	94.. 95	45.69282	60.55591
43..44	5141911.9	62130515.0	95.. 96	25.38490	35.17101
44..45	4823142.5	57307372.5	96.. 97	14.71588	20.45513
45..46	4523095.4	52784277.1	97.. 98	8.65458	11.80055
46..47	4241634.1	48542643.0	98.. 99	5.11006	6.690493
47..48	3978516.3	44564126.7	99..100	3.173951	3.5165423
48..49	3735058.6	40829068.1	100..101	1.9514849	1.5650574
49..50	3509773.0	37319295.1	101..102	1.0474961	.5175613
50..51	3299804.0	34019491.1	102..103	.4337457	.0838156
51..52	3100480.9	30919010.2			

TABLE XXVIII.

613

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	60983527.	790364462.9	51 & 55	2663696.4	25031264.9
1.. 5	48421386.9	741943076.9	52.. 56	2491369.2	22539895.7
2.. 6	42247206.5	699695870.4	53.. 57	2325489.0	20214406.7
3.. 7	37699864.6	661996005.8	54.. 58	2164372.5	18050034.2
4.. 8	34734670.6	627261335.2	55.. 59	2006084.4	16043949.8
5.. 9	32381690.9	594879644.3	56.. 60	1849686.8	14194263.0
6..10	30573513.2	564306131.1	57.. 61	1694469.2	12499793.8
7..11	29045817.3	535260313.8	58.. 62	1545594.0	10954199.8
8..12	27682660.2	507577653.6	59.. 63	1402669.7	9551530.1
9..13	26437714.5	481139939.1	60.. 64	1266546.5	8284983.6
10..14	25282163.7	455857775.4	61.. 65	1135697.1	7149286.5
11..15	24183202.6	431674572.8	62.. 66	1014554.0	6134732.5
12..16	23108836.5	408565736.3	63.. 67	903473.0	5231259.5
13..17	22066714.0	386499022.3	64.. 68	802266.4	4428993.1
14 18	21063358.1	365433664.2	65.. 69	709735.4	3719257.7
15..19	20097723.5	345337940.7	66.. 70	607904.0	3111353.7
16..20	19162580.6	326175360.1	67.. 71	548573.4	2562780.3
17..21	18260521.5	307914838.6	68.. 72	476688.7	2086091.6
18..22	17399333.1	290515505.5	69.. 73	409254.9	1676836.7
19..23	16577144.6	273938360.9	70.. 74	346625.2	1330211.5
20..24	15792248.0	258146112.9	71.. 75	288969.3	1041242.2
21..25	15043007.8	243103105.1	72.. 76	237666.6	803575.6
22..26	14327789.7	228775315.4	73.. 77	191951.0	611624.6
23..27	13645168.1	215130147.3	74.. 78	152604.5	459020.1
24..28	12989188.6	202140958.7	75.. 79	119550.9	339469.2
25..29	12352525.3	189788433.4	76.. 80	92103.80	247365.36
26..30	11731076.6	178057356.8	77.. 81	70109.46	177255.90
27..31	11137196.0	166920160.8	78.. 82	52370.91	124884.99
28..32	10568019.3	156352141.5	79.. 83	38749.37	86135.619
29..33	10019290.7	146332850.8	80.. 84	28025.873	58109.746
30..34	9488990.6	136843860.2	81.. 85	20005.791	38103.955
31..35	8983338.1	127860522.1	82.. 86	13808.103	24295.852
32..36	8502850.2	119357671.9	83.. 87	9246.328	15049.524
33..37	8046280.4	111311391.5	84.. 88	5945.562	9103.962
34..38	7612503.1	103698888.4	85.. 89	3770.053	5333.909
35..39	7199099.5	96499788.9	86.. 90	2356.801	2977.108
36..40	6802540.7	89697248.2	87.. 91	1358.028	1619.0800
37..41	6418576.4	83278671.8	88.. 92	734.5764	884.5036
38..42	6049705.0	77228966.8	89.. 93	398.6756	485.8280
39..43	5696784.0	71532182.8	90.. 94	223.8491	261.9789
40..44	5359458.4	66172724.4	91.. 95	119.9437	142.03521
41..45	5035248.3	61137476.1	92.. 96	63.46225	78.57296
42..46	4726907.3	56410569.8	93.. 97	34.55034	44 02262
43..47	4434725.5	51975843.3	94.. 98	19.23240	24.79022
44..48	4160619.1	47815224.2	95.. 99	10.95013	13.840092
45..49	3905247.0	43909977.2	96..100	6.636443	7.203649
46..50	3666445.2	40243532.0	97..101	3.902970	3.300679
47..51	3443143.4	36800388.6	98..102	2.094992	1.205687
48..52	3231275.6	33569113.0	99..103	.954240	.2514468
49..53	3031703.9	30537409.1			
50..54	2842447.8	27694961.3			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Three Years.

Ages	D.	N.	Ages	D.	N.
0 & 3	65607312.	827037714.9	51 & 54	2804307.2	26915206.6
1.. 4	51598162.6	775439532.3	52.. 55	2620626.0	24295894.6
2.. 5	44518373.9	730921178.4	53.. 56	2451497.6	21842397.0
3.. 6	39504556.6	691416591.8	54.. 57	2287916.6	19554470.4
4.. 7	36269405.0	655147186.8	55.. 58	2127803.3	17446657.1
5.. 8	33737004.4	621410182.4	56.. 59	1970129.6	15456527.5
6.. 9	31805233.0	589604949.4	57.. 60	1814542.7	13441984.8
7..10	30197984.7	559406964.7	58.. 61	1659059.8	11982905.0
8..11	28790334.0	530616630.7	59.. 62	1508181.1	10474741.9
9..12	27500337.3	503116093.4	60.. 63	1363010.3	9111733.6
10..13	26303347.5	476812745.9	61.. 64	1224131.3	7867602.3
11..14	25168667.9	451644078.1	62.. 65	1095055.8	6792546.5
12..15	24066629.9	427577448.2	63.. 66	976601.6	5815944.9
13..16	22993292.2	404584156.0	64.. 67	868915.4	4947029.5
14..17	21952360.8	382631795.2	65.. 68	770359.4	4176670.1
15..18	20946985.9	361684809.3	66.. 69	680574.5	3496095.6
16..19	19973309.1	341711500.2	67.. 70	582067.1	2914028.5
17..20	19034034.3	322677465.9	68.. 71	524223.1	2369805.4
18..21	18134262.9	304543203.0	69.. 72	454546.6	1935258.8
19..22	17278191.5	287265011.5	70.. 73	389156.8	1546102.0
20..23	16460918.1	270804093.4	71.. 74	328723.7	1217376.3
21..24	15680742.8	255123350.6	72.. 75	271963.6	945414.7
22..25	14938525.2	240184825.4	73.. 76	221474.6	723940.1
23..26	14227578.7	225957246.7	74.. 77	176956.4	546983.7
24..27	13549059.3	212408187.4	75.. 78	138844.4	408139.3
25..28	12897051.1	199511136.3	76.. 79	108131.1	300008.2
26..29	12262176.8	187248959.5	77.. 80	82619.84	217383.40
27..30	11644641.4	175604318.1	78.. 81	62577.47	154810.93
28..31	11030682.3	164553635.8	79.. 82	46671.85	108139.076
29..32	10476091.5	154077544.3	80.. 83	34161.107	73977.969
30..33	9920821.2	144156723.1	81.. 84	24614.540	49363.429
31..34	9393125.2	134763597.9	82.. 85	17324.792	32034.637
32..35	8891654.9	125871943.0	83.. 86	11865.446	20169.191
33..36	8416714.3	117455228.7	84.. 87	7812.15	12317.976
34..37	7965405.9	109489822.8	85.. 88	5001.465	7316.511
35..38	7535211.6	101954611.2	86.. 89	3109.234	4207.277
36..39	7125255.7	94829355.5	87.. 90	1900.853	2306.424
37..40	6730759.6	88098595.9	88.. 91	1064.401	1242.0225
38..41	6348902.2	81749693.7	89.. 92	573.0963	668.9263
39..42	5982149.6	75767544.1	90.. 93	312.7732	356.1531
40..43	5629123.6	70138420.5	91.. 94	165.5222	190.63087
41..44	5289759.0	64848661.5	92.. 95	85.67404	104.95683
42..45	4961956.7	59852774.8	93.. 96	45.69282	59.26401
43..46	4658069.9	55223804.9	94.. 97	25.59285	33.67116
44..47	4370058.1	50853746.8	95.. 98	14.42430	19.24686
45..48	4099051.0	46754695.8	96.. 99	8.39510	10.85175
46..49	3847416.1	42907279.7	97..100	5.193738	5.65809
47..50	3612121.6	39295158.1	98..101	3.035643	2.62237
48..51	3392862.1	35902296.0	99..102	1.646065	.97631
49..52	3186247.9	32716048.1	100..103	.7807423	.19556
50..53	2990220.3	29725827.8			

TABLE XXVIII. 613

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Four Years.

Ages	D.	N.	Ages	D.	N.
0 & 4	60983527.	790364462.9	51 & 55	2663696.4	25031264.9
1.. 5	48421386.9	741943076.9	52.. 56	2491369.2	22539895.7
2.. 6	42247206.5	699695870.4	53.. 57	2325489.0	20214406.7
3.. 7	37699864.6	661995005.8	54.. 58	2164372.5	18050034.2
4.. 8	34734670.6	627261335.2	55.. 59	2006084.4	16043949.8
5.. 9	32381690.9	594879644.3	56.. 60	1849686.8	14194263.0
6..10	30573513.2	564306131.1	57.. 61	1694469.2	12499793.8
7..11	29045817.3	535260313.8	58.. 62	1545594.0	10954199.8
8..12	27682660.2	507577653.6	59.. 63	1402669.7	9551530.1
9..13	26437714.5	481139939.1	60.. 64	1266546.5	8284983.6
10..14	25292163.7	455857775.4	61.. 65	1135697.1	7149286.5
11..15	24183202.6	431674572.8	62.. 66	1014554.0	6134732.5
12..16	23108836.5	408565736.3	63.. 67	903473.0	5231259.5
13..17	22066714.0	386499023.3	64.. 68	802266.4	4428993.1
14 16	21063358.1	365435664.2	65.. 69	709735.4	3719257.7
15..19	20097723.5	345337940.7	66.. 70	607904.0	3111353.7
16..20	19162580.6	326175360.1	67.. 71	548573.4	2562750.3
17..21	18260521.5	307914838.6	68.. 72	476688.7	2086091.6
18..22	17399333.1	290515505.5	69.. 73	409234.9	1676836.7
19..23	16577144.6	273938360.9	70.. 74	346625.2	1330211.5
20..24	15792243.0	258146112.9	71.. 75	288969.3	1041242.2
21..25	15043407.8	243103105.1	72.. 76	237666.6	803575.6
22..26	14327769.7	228775315.4	73.. 77	191951.0	611624.6
23..27	13645168.1	215130147.3	74.. 78	152604.5	459020.1
24..28	12989188.6	202140958.7	75.. 79	119550.9	339469.2
25..29	12372525.3	189788433.4	76.. 80	92103.80	247365.36
26..30	11731076.6	178057356.8	77.. 81	70109.46	177255.90
27..31	11137196.0	166920160.6	78.. 82	52370.91	124884.99
28..32	10568019.3	156352141.5	79.. 83	38749.37	86135.619
29..33	10019290.7	146332850.8	80.. 84	28025.873	58109.745
30..34	9458990.6	136843860.2	81.. 85	20005.791	38103.955
31..35	8983338.1	127860522.1	82.. 86	13608.103	24295.852
32..36	8502850.2	119357671.9	83.. 87	9246.328	15049.524
33..37	8046280.4	111311391.5	84.. 88	5945.562	9103.962
34..38	7612503.1	103698888.4	85.. 89	3770.053	5333.909
35..39	7199099.5	96499788.9	86.. 90	2356.801	2977.108
36..40	6802540.7	89697248.2	87.. 91	1358.028	1619.0800
37..41	6418576.4	83278671.8	88.. 92	734.5764	884.5036
38..42	6049705.0	77228966.8	89.. 93	398.6756	485.8280
39..43	5696784.0	71532182.8	90.. 94	223.8491	261.9789
40..44	5359458.4	66172724.4	91.. 95	119.9437	142.03521
41..45	5035246.3	61137476.1	92.. 96	63.46225	78.57296
42..46	4726907.3	56410569.8	93.. 97	34.55034	44.02262
43..47	4434725.5	51975843.3	94.. 98	19.23240	24.79022
44..48	4160619.1	47815224.2	95.. 99	10.95013	13.840092
45..49	3905247.0	43909977.2	96..100	6.636443	7.203649
46..50	3666445.2	40243532.0	97..101	3.902970	3.300679
47..51	3443143.4	36800388.6	98..102	2.094992	1.203687
48..52	3231275.6	33569113.0	99..103	.954240	.2514468
49..53	3031703.9	30537409.1			
50..54	2842447.8	27694961.3			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	57228916.	756165437.6	52 & 57	2361384.7	20850884.4
1.. 6	45951100.9	710214336.7	53.. 58	2199896.8	18650987.6
2.. 7	40317191.0	669897145.7	54.. 59	2040561.7	16610425.9
3.. 8	36104600.4	633792545.3	55.. 60	1883443.6	14726982.3
4.. 9	33339278.1	600453267.2	56.. 61	1727287.7	12999694.6
5..10	31127646.7	569325620.5	57.. 62	1578581.7	11421112.9
6..11	29407018.0	539918602.5	58.. 63	1437465.2	9983647.7
7..12	27928314.1	511990288.4	59.. 64	1303399.0	8680248.7
8..13	26612798.7	483377489.7	60.. 65	1175048.1	7505200.6
9..14	25411313.9	459966175.8	61.. 66	1052207.6	6452993.0
10..15	24292254.5	435673921.3	62.. 67	938583.4	5514409.6
11..16	23220770.0	412453151.3	63.. 68	834173.1	4680236.5
12..17	22177602.0	390275549.3	64.. 69	739131.3	3941105.2
13..18	21173080.3	369102469.0	65.. 70	633951.0	3307154.2
14..19	20209377.5	348893091.5	66.. 71	572923.4	2734230.8
15..20	19281945.1	329611146.4	67.. 72	498831.1	2235399.7
16..21	18383843.8	311227302.6	68.. 73	429190.8	1806208.9
17..22	17520474.8	293706827.8	69.. 74	364526.6	1441682.3
18..23	16693371.0	277013456.8	70.. 75	304705.8	1136976.5
19..24	15903753.1	261109703.7	71.. 76	252527.6	884448.9
20..25	15149978.1	245959725.6	72.. 77	205984·5	678464.4
21..26	14428000.6	231531725.0	73.. 78	165535.6	512928.8
22..27	13741277.0	217790448.0	74.. 79	131398.9	381529.87
23..28	13081326.0	204709122.0	75.. 80	101830.93	279698.94
24..29	12440772.6	192268349.4	76.. 81	78157.35	201541.59
25..30	11817511.8	180450837.6	77.. 82	58674.42	142867.17
26..31	11219364.6	169230973.0	78.. 83	43481.03	99386.14
27..32	10650754.4	158580218.6	79.. 84	31790.10	67596.037
28..33	10107210.1	148473008.5	80.. 85	22778.398	44817.639
29..34	9583174.0	138889834.5	81.. 86	15941.217	28876.422
30..35	9075021.0	129814813.5	82.. 87	10760.173	18116.249
31..36	8590524.4	121224289.1	83.. 88	7002.051	11114.198
32..37	8128625.3	113095663.8	84.. 89	4481.703	6632.495
33..38	76-9794.5	105405869.3	85.. 90	2857.701	3774.794
34..39	7272943.2	98132926.1	86.. 91	1683.772	2091.0224
35..40	6873039.9	91259886.2	87.. 92	937.2182	1153.8042
36..41	6487028.1	84772858.1	88.. 93	511.0096	642.7946
37..42	6116095.6	78656762.5	89.. 94	285.3288	357.4658
38..43	5761116.7	72895645.8	90.. 95	162.2095	195.2563
39..44	5423877.4	67471768.4	91.. 96	88.8471	106.40924
40..45	5101594.1	62370174.3	92.. 97	47.98659	58.42265
41..46	4792931.0	57577243.3	93.. 98	25.96375	32.458900
42..47	4499392.8	53077850.5	94.. 99	14.60017	17.858730
43..48	4222187.2	48855663.3	95..100	8.656230	9.202500
44..49	3963904.1	44891759.2	96..101	4.987128	4.215372
45..50	3721555.8	41170203.4	97..102	2.693561	1.521811
46..51	3494925.6	37675277.8	98..103	1.214487	0.307324
47..52	3279162.2	34396115.6			
48..53	3074547.7	31321567.9			
49..54	2881831.4	28439686.5			
50..55	2699924.5	25739762.0			
51..56	2527492.9	23212269.1			

TABLE XXVIII.   617

ory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Eight Years.

D.	N.	Ages.	D.	N.
35140.	663382473.3	50 & 58	2297066.2	20322555.2
09178.4	623073294.9	51.. 59	2136605.5	18185949.7
24829.1	587448465.8	52.. 60	1977315.1	16208634.6
41139.7	555407326.1	53.. 61	1818402.1	14390232.5
39421.0	5.5767905.1	54.. 62	1666682.9	12723549.6
75519.1	493092386.0	55.. 63	1523892.8	11199656.8
27511.6	471964874.4	56.. 64	1390663.2	9808993.6
96149.6	447168724.8	57.. 65	1265684.6	8543309.0
99899.3	423568825.5	58.. 66	1148134.6	7395174.4
99870.3	401065955.2	59.. 67	1036450.4	6358724.0
78972.9	379589982.3	60.. 68	929893.8	5428830.2
15628.5	359074353.8	61.. 69	828024.6	4600805.6
88007.7	339486346.1	62.. 70	713142.3	3887663.3
98022.5	320788323.6	63.. 71	646964.1	3240699.2
47275.8	302941047.8	64.. 72	565797.8	2674901.4
28536.0	285912511.8	65.. 73	489160.9	2185740.5
85675.5	269676836.3	66.. 74	417798.0	1767942.5
70888.9	254205947.4	67.. 75	351661.8	1416280.7
35791.7	239470155.7	68.. 76	293672.9	1122607.8
34180.2	225435975.5	69.. 77	242702.3	879905.5
59932.2	212076043.3	70.. 78	199024.1	680881.4
05514.6	199370528.7	71.. 79	162517.8	518363.6
70787.4	187299741.3	72.. 80	130282.79	388080.85
64025.6	175835715.7	73.. 81	103023.24	285057.61
86089.6	164949626.1	74.. 82	79484.62	205572.99
37558.8	154612067.3	75.. 83	60041.82	145531.17
15269.4	144796797.9	76.. 84	44553.20	100977.97
17900.9	135478897.0	77.. 85	32482.51	68495.46
41241.5	126537655.5	78.. 86	23102.39	45393.07
78601.1	118259054.4	79.. 87	16043.79	29349.276
28695.2	110330359.2	80.. 88	10711.002	18638.274
98502.5	102831856.7	81.. 89	7091.088	11547.186
85819.5	95746037.2	82.. 90	4655.806	6891.380
88716.3	89057320.9	83.. 91	2858.285	4033.0949
09444.0	82747876.9	84.. 92	1674.9610	2358.1339
47460.3	76800416.6	85.. 93	980.1694	1377.9645
04462.2	71195954.4	86.. 94	578.5396	799.4249
78516.3	65917438.1	87.. 95	338.1268	461.2981
69950.8	60947487.3	88.. 96	196.3099	264.9882
77911.3	56269576.0	89.. 97	115.8076	149.1806
00821.7	51868754.3	90.. 98	68.2750	80.9056
38223.6	47730530.7	91.. 99	38.3254	42.580236
89250.3	43841280.4	92..100	21.640574	20.939662
54024.5	40187255.9	93..101	11.708909	9.230753
29254.7	36758001.2	94..102	5.985692	3.245061
14639.8	33543361.4	95..103	2.602474	.642587
10525.3	30532835.1			
17205.9	27715630.2			
34116.1	25081514.1			
61892.7	22619621.4			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	51828244.	692940683.8	50 & 57	2423206.0	22053447.1
1.. 8	41996291.6	650944392.2	51.. 58	2266243.7	19787203.4
2.. 9	37060052.0	613884340.2	52.. 59	2106068.5	17681134.9
3..10	33312123.2	580572217.0	53.. 60	1947257.7	15733877.2
4..11	30825391.1	549746825.9	54.. 61	1759038.3	13944838.9
5..12	28788103.0	520958722.9	55.. 62	1638522.7	12306316.2
6..13	27182840.3	493775882.6	56.. 63	1496580.2	10809736.0
7..14	25806592.4	467969290.2	57.. 64	1364240.5	9445495.5
8..15	24578045.8	443391244.4	58.. 65	1239235.6	8206259.9
9..16	23444636.8	419946607.6	59.. 66	1120342.6	7085917.3
10..17	22385517.0	397561090.6	60.. 67	1007145.6	6078771.7
11..18	21382550.2	376178540.4	61.. 68	898752.8	5180018.9
12..19	20416735.0	355761805.4	62.. 69	798393.4	4381625.5
13..20	19490067.7	336271737.7	63.. 70	686465.1	3695160.4
14..21	18601126.2	317670611.5	64.. 71	622218.0	3072942.4
15..22	17748672.1	299921939.4	65.. 72	543295.6	2529646.8
16..23	16923121.1	282998818.3	66.. 73	469062.8	2060584.0
17..24	16126763.5	266872054.8	67.. 74	400041.0	1660543.0
18..25	15363918.7	251508136.1	68.. 75	336052.1	1324490.9
19..26	14633194.7	236874941.4	69.. 76	280031.9	1044459.0
20..27	13935783.0	222939158.4	70.. 77	230783.4	813675.6
21..28	13265601.0	209673557.4	71.. 78	188745.4	624930.2
22..29	12617267.3	197056290.1	72.. 79	152953.8	471976.4
23..30	11986362.3	185069927.8	73.. 80	121406.73	350569.66
24..31	11383279.4	173686648.4	74.. 81	94975.36	255594.30
25..32	10808870.2	162877778.2	75.. 82	72317.62	183276.68
26..33	10261948.2	152615830.0	76.. 83	54306.48	128970.20
27..34	9742949.7	142872880.3	77.. 84	39965.54	89004.66
28..35	9245519.5	133627360.8	78.. 85	28992.86	60011.80
29..36	8764334.4	124863026.4	79.. 86	20588.36	39423.437
30..37	8296256.2	116566770.2	80.. 87	14144.062	25279.375
31..38	7848593.2	108718177.0	81.. 88	9407.249	15872.126
32..39	7421973.5	101296203.5	82.. 89	6142.221	9729.905
33..40	7014038.5	94282165.0	83.. 90	4000.782	5729.123
34..41	6621486.9	87660678.1	84.. 91	2427.019	3302.1039
35..42	6243382.8	81415295.3	85.. 92	1408.9937	1893.1102
36..43	5886455.0	75528840.3	86.. 93	808.3645	1084.7457
37..44	5543323.3	69983517.0	87.. 94	466.6151	618.1306
38..45	5221217.7	64762299.3	88.. 95	265.0183	353.1123
39..46	4914452.8	59847846.5	89.. 96	153.1555	199.9568
40..47	4622352.1	55225494.4	90.. 97	90.8545	109.1023
41..48	4343589.3	50881905.1	91.. 98	50.4851	58.61719
42..49	4081218.6	46800686.5	92.. 99	27.37532	31.241872
43..50	3833352.1	42967334.4	93..100	15.581214	15.660658
44..51	3600741.4	39366593.0	94..101	8.673266	6.987392
45..52	3378509.1	35988083.9	95..102	4.489269	2.498123
46..53	3167035.7	32821048.2	96..103	1.995230	.502893
47..54	2965920.0	29855128.2			
48..55	2776065.3	27079062.9			
49..56	2597409.8	24481653.1			

TABLE XXVIII. 617

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Eight Years.

Age	D.	N.	Ages.	D.	N.
0 & 8	49635140.	663382473.3	50 & 58	2297066.2	20322555.2
1.. 9	40309178.4	623073294.9	51.. 59	2136605.5	18185949.7
2..10	35624829.1	587448465.8	52.. 60	1977315.1	16208634.6
3..11	32041139.7	555407326.1	53.. 61	1818402.1	14390232.5
4..12	29639421.0	525767905.1	54.. 62	1666682.9	12723549.6
5. 13	27675319.1	498092386.0	55.. 63	1523892.8	11199656.8
6..14	26127511.6	471964874.4	56.. 64	1390663.2	9808993.6
7..15	24796149.6	447168724.8	57.. 65	1265684.6	8543309.0
8..16	23599899.3	423568925.5	58.. 66	1148134.6	7395174.4
9..17	22499870.3	401069935.2	59.. 67	1036450.4	6358724.0
10..18	21478972.9	379589982.3	60.. 68	929893.8	5428830.2
11..19	20515628.5	359074353.8	61.. 69	828024.6	4600605.6
12..20	19583007.7	339486346.1	62.. 70	713142.3	3887663.3
13..21	18698022.5	320788323.6	63.. 71	646964.1	3240699.2
14..22	17847275.8	302941047.8	64.. 72	565797.8	2674901.4
15..23	17023536.0	285912511.8	65.. 73	489160.9	2185740.5
16..24	16235675.5	269676836.3	66.. 74	417798.0	1767942.5
17..25	15470888.9	254205947.4	67.. 75	351661.8	1416280.7
18..26	14735791.7	239470155.7	68.. 76	293672.9	1122607.8
19..27	14034180.2	225435975.5	69.. 77	242702.3	879905.5
20..28	13359932.2	212076043.3	70.. 78	199024.1	680881.4
21..29	12705514.6	199370529.7	71.. 79	162517.8	518363.6
22..30	12070787.4	187299741.3	72.. 80	130282.79	388080.85
23..31	11464025.6	175835715.7	73.. 81	103023.24	285057.61
24..32	10886089.6	164949626.1	74.. 82	79484.62	205572.99
25..33	10337558.8	154612067.3	75.. 83	60041.82	145531.17
26..34	9815269.4	144796797.9	76.. 84	44553.20	100977.97
27..35	9317900.9	135478897.0	77.. 85	32482.51	68495.46
28..36	8841241.5	126637655.5	78.. 86	23102.39	45393.07
29..37	8378601.1	118259054.4	79.. 87	16043.79	29349.276
30..38	7928695.2	110330359.2	80.. 88	10711.002	18638.274
31..39	7498502.5	102831856.7	81.. 89	7091.088	11547.186
32..40	7085819.5	95746037.2	82.. 90	4655.806	6891.380
33..41	6688716.3	89057320.9	83.. 91	2858.285	4033.0949
34..42	6309444.0	82747876.9	84.. 92	1674.9610	2358.1339
35..43	5947460.3	76800416.6	85.. 93	980.1694	1377.9645
36..44	5604462.2	71195954.4	86.. 94	578.5396	799.4249
37..45	5278516.3	65917438.1	87.. 95	338.1268	461.2981
38..46	4969930.8	60947487.3	88.. 96	196.3099	264.9882
39..47	4677911.3	56269576.0	89.. 97	115.6076	149.1806
40..48	4400821.7	51868754.3	90.. 98	68.2750	80.9056
41..49	4138223.6	47730530.7	91.. 99	39.3254	42.580236
42..50	3889250.3	43841280.4	92..100	21.640574	20.939662
43..51	3654024.5	40187255.9	93..101	11.708909	9.230753
44..52	3429254.7	36758001.2	94..102	5.985692	3.245061
45..53	3214639.8	33543361.4	95..103	2.602474	.642587
46..54	3010525.3	30532836.1			
47..55	2817205.9	27715630.2			
48..56	2634116.1	25081514.1			
49..57	2461892.7	22619621.4			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	47641152.	634983758.2	50 & 59	2165664.9	18670535.1
1..10	38748126.8	596235631.4	51.. 60	2005985.4	16664549.7
2..11	34265607.0	561970024.4	52.. 61	1846470.5	14818079.2
3..12	30808394.9	531161629.5	53.. 62	1694038.7	13124040.5
4..13	28493935.9	502667693.6	54.. 63	1550082.9	11573957.6
5..14	26601062.8	476066630.8	55.. 64	1416042.8	10157914.8
6..15	25104503.3	450962127.5	56.. 65	1290198.4	8867716.4
7..16	23809323.1	427152804.4	57.. 66	1172639.1	7695077.3
8..17	22648876.1	404503928.3	58.. 67	1062161.2	6632916.1
9..18	21588695.1	382915233.2	59.. 68	956950.8	5675965.3
10..19	20608141.9	362307091.3	60.. 69	856715.1	4819250.2
11..20	19682887.1	342624204.2	61.. 70	739609.5	4079640.7
12..21	18791982.3	323832221.9	62.. 71	672106.2	3407534.5
13..22	17940245.0	305891976.9	63.. 72	588300.2	2819234.3
14..23	17123139.0	288768837.9	64.. 73	509421.0	2309813.3
15..24	16336808.2	272432029.7	65.. 74	435699.6	1874113.7
16..25	15575371.6	256856658.1	66.. 75	367271.3	1506842.4
17..26	14838388.6	242018269.5	67.. 76	307314.2	1199528.2
18..27	14132577.3	227885692.2	68.. 77	254524.9	945003.3
19..28	13454263.5	214431428.7	69.. 78	209302.8	735700.5
20..29	12795863.1	201635565.6	70.. 79	171368.2	564332.25
21..30	12155212.5	189480353.1	71.. 80	138429.27	425902.98
22..31	11544771.6	177935581.5	72.. 81	110555.24	315347.74
23..32	10963308.9	166972272.6	73.. 82	86219.87	229127.87
24..33	10411411.2	156560861.4	74.. 83	65992.24	163135.63
25..34	9887588.8	146673272.6	75.. 84	49258.48	113877.15
26..35	9387065.4	137286207.2	76.. 85	36211.20	77665.95
27..36	8910457.9	128375749.3	77.. 86	25883.06	51782.89
28..37	8452123.4	119923625.9	78.. 87	18002.89	33780.00
29..38	8007392.0	111916233.9	79.. 88	12149.63	21630.366
30..39	7575031.6	104341202.3	80.. 89	8073.843	13556.523
31..40	7158882.4	97182319.9	81.. 90	5375.048	8181.475
32..41	6757168.2	90425151.7	82.. 91	3326.255	4855.2202
33..42	6373505.2	84051646.5	83.. 92	1972.5912	2882.6290
34..43	6008465.6	78043180.9	84.. 93	1165.1903	1717.4387
35..44	5662544.9	72380636.0	85.. 94	701.4991	1015.9396
36..45	5334809.9	67045826.1	86.. 95	419.2316	596.7080
37..46	5024492.2	62021333.9	87.. 96	250.4644	346.2436
38..47	4730738.1	57290595.8	88.. 97	148.4384	197.8052
39..48	4453718.2	52836877.6	89.. 98	87.0266	110.7786
40..49	4192750.0	48644127.6	90.. 99	51.8306	58.94798
41..50	3943574.0	44700553.6	91..100	30.29680	28.651180
42..51	3707307.8	40993245.8	92..101	16.262374	12.388806
43..52	3480000.1	37513245.7	93..102	8.080684	4.308122
44..53	3262923.9	34250321.8	94..103	3.469966	.838156
45..54	3055776.8	31194545.0			
46..55	2859574.4	28334970.6			
47..56	2673153.0	25661817.6			
48..57	2496683.9	23165133.7			
49..58	2328933.7	20836200.0			

TABLE XXVIII.

621

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twelve Years.

Ages	D.	N.	Ages.	D.	N.
0 &12	42354131.	553899783.1	50 & 62	1768864.3	14229115.5
1..13	34450870.4	521448912.7	51.. 63	1623041.2	12606074.3
2..14	30444264.9	491004647.8	52.. 64	1486619.0	11119455.3
3..15	27353228.9	463651418.9	53.. 65	1358256.3	9761199.0
4..16	25268068.3	438383350.6	54.. 66	1238084.7	8523114.3
5..17	23553306.4	414830044.2	55.. 67	1126023.6	7397090.7
6..18	22197155.2	392632889.0	56.. 68	1021019.8	6376070.9
7..19	21035617.2	371597271.8	57.. 69	922797.0	5453273.9
8..20	20004252.8	351593019.0	58.. 70	807037.6	4646236.3
9..21	19065053.2	332527965.8	59.. 71	742187.5	3904048.8
10..22	18199431.9	314328533.9	60.. 72	655807.0	3248241.8
11..23	17382621.4	296945912.5	61.. 73	570687.8	2677554.0
12..24	16596122.7	280349789.8	62.. 74	490125.9	2187428.1
13..25	15841553.4	264508236.4	63.. 75	414734.9	1772693.2
14..26	15115162.0	249393074.4	64.. 76	348570.3	1424122.9
15..27	14416327.3	234976747.1	65.. 77	290089.2	1134033.7
16..28	13735063.2	221241683.9	66.. 78	239890.1	894143.6
17..29	13066908.5	208174775.4	67.. 79	197776.5	696367.1
18..30	12414518.3	195760257.1	68.. 80	160984.05	535383.04
19..31	11790855.1	183969402.0	69.. 81	130262.24	405120.80
20..32	11196805.5	172772596.5	70.. 82	103662.45	301458.35
21..33	10632968.0	162139628.5	71.. 83	81621.03	219837.32
22..34	10099501.8	152040126.7	72.. 84	63021.45	156815.87
23..35	9591341.8	142448784.9	73.. 85	47731.85	109084.02
24..36	9107340.1	133341444.8	74.. 86	35663.06	74020.96
25..37	8644751.9	124696692.9	75.. 87	24859.71	49161.25
26..38	8201323.3	116495369.6	76.. 88	17027.46	32133.79
27..39	7777766.3	108717603.3	77.. 89	11513.49	20620.30
28..40	7367816.7	101349786.6	78.. 90	7789.64	12830.66
29..41	6964968.2	94384818.4	79.. 91	4959.56	7871.1008
30..42	6571512.4	87813306.0	80.. 92	3017.4629	4853.6379
31..43	6194808.9	81618497.1	81.. 93	1843.5997	3010.0382
32..44	5837849.4	75786647.7	82.. 94	1142.8917	1867.1465
33..45	5500674.5	70279973.2	83.. 95	711.6657	1155.4808
34..46	5183331.4	65096641.8	84.. 96	447.6204	707.8604
35..47	4883754.0	60212887.8	85.. 97	284.7205	423.1399
36..48	4602002.1	55610885.7	86.. 98	176.4573	246.6826
37..49	4338153.8	51272731.9	87.. 99	108.0413	138.64129
38..50	4089224.0	47183507.9	88..100	66.94151	71.69978
39..51	3854399.4	43329108.5	89..101	39.24653	32.45325
40..52	3627233.8	39701874.7	90..102	21.24920	11.20405
41..53	3406416.5	36295458.2	91..103	9.10866	2.095390
42..54	3193470.9	33101987.3			
43..55	2989750.5	30112236.8			
44..56	2795507.4	27316729.4			
45..57	2610445.7	24706283.7			
46..58	2432894.6	22273389.1			
47..59	2259738.7	20013650.4			
48..60	2090608.4	17923042.0			
49..61	1925062.2	15997979.8			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 3½ per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N
0 &11	44048859.	581287764.0	50 & 61	1898720.9	15621765.8
1..12	35835830.4	545451933.6	51.. 62	1745129.3	13876636.5
2..13	31673953.6	513777980.0	52.. 63	1599844.2	12276792.3
3..14	28467872.9	485310107.1	53.. 64	1464020.8	10812771.5
4..15	26315355.6	458994751.5	54.. 65	1336323.0	9476448.5
5..16	24542306.5	434452445.0	55.. 66	1217166.0	8259282.5
6..17	23134011.1	411318433.9	56.. 67	1105842.0	7153440.5
7..18	21924511.9	389393922.0	57.. 68	1001620.4	6151820.1
8..19	20850590.6	368543331.4	58.. 69	903513.3	5248306.8
9..20	19872645.9	348670685.5	59.. 70	787502.4	4460804.4
10..21	18968157.1	329702528.4	60.. 71	721202.7	3739601.7
11..22	18117731.7	311584796.7	61.. 72	633844.9	3105756.8
12..23	17298830.2	294285966.5	62.. 73	550265.6	2555491.2
13..24	16513141.9	277772824.6	63.. 74	471791.3	2083699.9
14..25	15759459.9	262013364.7	64.. 75	398871.4	1684828.5
15..26	15031652.8	246981711.9	65.. 76	334707.3	1350121.2
16..27	14327083.3	232654628.6	66.. 77	278170.3	1071950.9
17..28	13642925.8	219011702.8	67.. 78	229694.3	842256.6
18..29	12976560.0	206035142.8	68.. 79	188997.5	653259.14
19..30	12328083.2	193707059.6	69.. 80	153506.32	499752.82
20..31	11708186.3	181998873.3	70.. 81	123865.20	375987.62
21..32	11117747.6	170881125.7	71.. 82	98308.79	277578.83
22..33	10559115.7	160322010.0	72.. 83	76817.69	200761.14
23..34	10028864.0	150293146.0	73.. 84	58727.89	142033.25
24..35	9523785.9	140769360.1	74.. 85	44003.17	98030.08
25..36	9042738.2	131726621.9	75.. 86	31901.48	66128.60
26..37	8581522.7	123145099.2	76.. 87	22485.06	43643.54
27..38	8140895.3	115004203.9	77.. 88	15274.13	28369.41
28..39	7717348.7	107286855.2	78.. 89	10276.58	18092.83
29..40	7303726.4	99983128.8	79.. 90	6941.96	11150.871
30..41	6896516.4	93086612.4	80.. 91	4372.304	6778.5673
31..42	6505121.8	86581490.6	81.. 92	2650.1746	4128.3927
32..43	6131585.2	80449905.4	82.. 93	1596.9054	2531.4873
33..44	5778710.5	74671194.9	83.. 94	982.0986	1549.3887
34..45	5445386.3	69225808.6	84.. 95	604.2876	945.1011
35..46	5130703.9	64095104.7	85.. 96	376.5426	568.5585
36..47	4833659.6	59261445.1	86.. 97	234.8144	333.7441
37..48	4553441.3	54708003.8	87.. 98	142.3198	191.4243
38..49	4291062.7	50416941.1	88.. 99	84.6810	106.7433
39..50	4043560.8	46373380.3	89..100	52.22572	54.5174
40..51	3808620.9	42564759.4	90..101	30.79009	23.7273
41..52	3580061.9	38984697.5	91..102	15.71244	8.0148
42..53	3359492.5	35625205.0	92..103	6.506186	1.5086
43..54	3147573.0	32477632.0			
44..55	2946153.7	29531478.3			
45..56	2754140.0	26777338.3			
46..57	2571788.8	24205549.5			
47..58	2396847.9	21808701.6			
48..59	2226738.9	19581962.7			
49..60	2061476.0	17520486.7			

TABLE XXVIII. 621

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twelve Years.

Ages.	D.	N.	Ages.	D.	N.
0 &12	42354131.	555899783.1	50 & 62	1768864.3	14229115.5
1..13	34450870.4	521448912.7	51.. 63	1623041.2	12606074.3
2..14	30444264.9	491004647.8	52.. 64	1486619.0	11119455.3
3..15	27353228.9	463651418.9	53.. 65	1358256.3	9761199.0
4..16	25268068.3	438383350.6	54.. 66	1238084.7	8523114.3
5..17	23553306.4	414830044.2	55.. 67	1126023.6	7397090.7
6..18	22197155.2	392632889.0	56.. 68	1021019.8	6376070.9
7..19	21035617.2	371597271.8	57.. 69	922797.0	5453273.9
8..20	20004252.8	351593019.0	58.. 70	807037.6	4646236.3
9..21	19065053.2	332527965.8	59.. 71	742187.5	3904048.8
10..22	18199431.9	314328533.9	60.. 72	655807.0	3248241.8
11..23	17362621.4	296945912.5	61.. 73	570687.8	2677554.0
12..24	16596122.7	280349789.8	62.. 74	490125.9	2187428.1
13..25	15841553.4	264508236.4	63.. 75	414734.9	1772693.2
14..26	15115162.0	249393074.4	64.. 76	348570.3	1424122.9
15..27	14416327.3	234976747.1	65.. 77	290089.2	1134033.7
16..28	13735063.2	221241683.9	66.. 78	239690.1	894143.6
17..29	13066908.5	208174775.4	67.. 79	197776.5	696367.1
18..30	12414518.3	195760257.1	68.. 80	160984.05	535383.04
19..31	11790855.1	183969402.0	69.. 81	130262.24	405120.80
20..32	11196805.5	172772596.5	70.. 82	103662.45	301458.35
21..33	10632968.0	162139628.5	71.. 83	81621.03	219837.32
22..34	10099501.8	152040126.7	72.. 84	63021.45	156815.87
23..35	9591341.8	142448784.9	73.. 85	47731.85	109084.02
24..36	9107340.1	133341444.8	74.. 86	35063.06	74020.96
25..37	8644751.9	124696692.9	75.. 87	24859.71	49161.25
26..38	8201323.3	116495369.6	76.. 88	17027.46	32133.79
27..39	7777766.3	108717603.3	77.. 89	11513.49	20620.30
28..40	7367816.7	101349786.6	78.. 90	7789.64	12830.66
29..41	6964968.2	94384818.4	79.. 91	4959.56	7871.1008
30..42	6571512.4	87813306.0	80.. 92	3017.4629	4853.6379
31..43	6194808.9	81618497.1	81.. 93	1843.5997	3010.0382
32..44	5837849.4	75780647.7	82.. 94	1142.8917	1867.1465
33..45	5500674.5	70279973.2	83.. 95	711.6657	1155.4808
34..46	5183331.4	65096641.8	84.. 96	447.6204	707.8604
35..47	4883754.0	60212887.8	85.. 97	284.7205	423.1399
36..48	4602002.1	55610885.7	86.. 98	176.4573	246.6826
37..49	4338153.8	51272731.9	87.. 99	108.0413	138.64129
38..50	4089224.0	47183507.9	88..100	66.94151	71.69978
39..51	3854399.4	43329108.5	89..101	39.24653	32.45325
40..52	3627233.8	39701874.7	90..102	21.24920	11.20405
41..53	3406416.5	36295458.2	91..103	9.10866	2.095390
42..54	3193470.9	33101987.3			
43..55	2989750.5	30112236.8			
44..56	2795507.4	27316729.4			
45..57	2610445.7	24706283.7			
46..58	2432894.6	22273389.1			
47..59	2259738.7	20013650.4			
48..60	2090608.4	17923042.0			
49..61	1925062.2	15997979.8			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3¼ per Cent.)

Difference of Age Thirteen Years.

Ages	D.	N.	Ages.	D.	N.
0 &13	40717256.	531444469.3	50 & 63	1645115.8	12920849.4
1..14	33113372.5	493331096.8	51.. 64	1508174.2	11412675.2
2..15	29252236.5	469078860.3	52.. 65	1379222.0	10033453.2
3..16	26264636.9	442814223.4	53.. 66	1258405.6	8775047.6
4..17	24249821.7	418564401.7	54.. 67	1145375.9	7629671.7
5..18	22599470.3	395964931.4	55.. 68	1039653.4	6590018.3
6..19	21297206.7	374667724.7	56.. 69	940669.9	5649348.4
7..20	20181769.1	354485955.6	57.. 70	824262.3	4825086.1
8..21	19191311.9	335294643.7	58.. 71	760598.6	4064487.5
9..22	18292401.1	317002242.6	59.. 72	674889.1	3389598.4
10..23	17461006.7	299541235.9	60.. 73	590461.6	2799136.8
11..24	16676510.1	282864725.8	61.. 74	508316.2	2290820.6
12..25	15921159.2	266943566.6	62.. 75	430852.2	1859968.4
13..26	15193899.2	251749667.4	63.. 76	362433.2	1497535.2
14..27	14496418.0	237253249.4	64.. 77	302104.2	1195431.0
15..28	13820619.5	223432629.9	65.. 78	250168.5	945262.5
16..29	13155155.8	210277474.1	66.. 79	206555.4	738707.1
17..30	12500953.7	197776520.4	67.. 80	168461.79	570245.27
18..31	11873523.7	185902996.7	68.. 81	136607.68	433637.59
19..32	11275863.5	174627133.2	69.. 82	109016.11	324621.48
20..33	10708578.6	163918554.6	70.. 83	86065.92	238555.56
21..34	10170139.4	153748415.2	71.. 84	66962.13	171593.43
22..35	9658897.9	144089517.3	72.. 85	51221.51	120371.92
23..36	9171942.2	134917575.1	73.. 86	38034.18	82337.74
24..37	8706510.6	126211064.5	74.. 87	27323·41	55014.33
25..38	8261751.0	117949313.5	75.. 88	18825.73	36188.60
26..39	7835498.8	110113814.7	76.. 89	12835.13	23353.47
27..40	7425498.0	102688316.7	77.. 90	8727.23	14626.24
28..41	7026085.8	95662230.9	78.. 91	5565.17	9061.074
29..42	6636738.3	89025492.6	79.. 92	3422.746	5638.3283
30..43	6258032.6	82767460.0	80.. 93	2099.1046	3539.2237
31..44	5898044.4	76869415.6	81.. 94	1319.4488	2219.7749
32..45	5556967.9	71312447.7	82.. 95	828.1824	1391.5925
33..46	5235958.9	66076488.8	83.. 96	527.1598	864.4327
34..47	4933848.5	61142640.3	84.. 97	338.4654	525.9673
35..48	4649695.7	56492944.6	85.. 98	213.9605	312.0068
36..49	4384418.6	52108526.0	86.. 99	133.9565	178.05025
37..50	4134100.0	47974426.0	87..100	85.40814	92.64211
38..51	3897926.4	44076499.6	88..101	50.30495	42.33716
39..52	3670832.1	40405667.5	89..102	27.08525	15.25191
40..53	3451300.4	36954367.1	90..103	12.31837	2.93354
41..54	3238076.3	33716290.8			
42..55	3033347.2	30682943.6			
43..56	2836874.9	27846068.7			
44..57	2649654.8	25196413.9			
45..58	2469463.8	22726950.1			
46..59	2293723.3	20433226.8			
47..60	2121590.7	18311636.1			
48..61	1952266.9	16359369.2			
49..62	1793404.0	14565965.2			

TABLE XXVIII. 623

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Fourteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &14	39136476.	507890389.6	47 & 61	1981199.1	16708029.8
1..15	31816836.8	476073552.8	48.. 62	1818748.3	14889281.5
2..16	28088068.6	447985484.2	49.. 63	1667938.6	13221342.9
3..17	25206230.8	422779253.4	50.. 64	1528686.4	11692656.5
4..18	23267779.0	399511474.4	51.. 65	1399220.2	10293436.3
5..19	21683210.6	377828263.8	52.. 66	1277830.0	9015606.3
6..20	20432740.4	357395523.4	53.. 67	1164175.2	7851431.1
7..21	19361614.2	338033909.2	54.. 68	1057521.3	6793909.8
8..22	18413543.0	319620366.2	55.. 69	957837.1	5836072.7
9..23	17550203.8	302070162.4	56.. 70	840226.7	4995846.0
10..24	16751711.3	285318451.1	57.. 71	776832.2	4219013.8
11..25	15998277.3	269320173.8	58.. 72	691630.7	3527383.1
12..26	15270250.4	254049923.4	59.. 73	607642.2	2919740.9
13..27	14571932.1	239477991.3	60.. 74	525929.0	2393811.9
14..28	13897400.7	225580590.6	61.. 75	446842.6	1946969.3
15..29	13237099.8	212343490.8	62.. 76	376518.0	1570451.3
16..30	12585378.9	199758111.9	63.. 77	314119.1	1256332.2
17..31	11956192.3	187801919.6	64.. 78	260530.1	995802.1
18..32	11354921.3	176446998.3	65.. 79	215405.7	780396.35
19..33	10784189.3	165662809.0	66.. 80	175939.52	604456.83
20..34	10242459.1	155420349.9	67.. 81	142953.13	461503.70
21..35	9726453.8	145693896.1	68.. 82	114326.61	347177.09
22..36	9236544.1	136457352.0	69.. 83	90510.81	256666.28
23..37	8768269.3	127689082.7	70.. 84	70608.73	186057.55
24..38	8320773.6	119368309.1	71.. 85	54424.35	131633.20
25..39	7893231.2	111475077.9	72.. 86	40814.85	90818.35
26..40	7480615.7	103994462.2	73.. 87	29638.71	61179.64
27..41	7081091.8	96913370.4	74.. 88	20691.46	40488.18
28..42	6694975.8	90218394.6	75.. 89	14190.65	26297.53
29..43	6320146.9	83898247.7	76.. 90	9729.03	16568.50
30..44	5958239.1	77940008.6	77.. 91	6235.01	10333.486
31..45	5614266.6	72325742.0	78.. 92	3840.696	6492.790
32..46	5289543.4	67036198.6	79.. 93	2381.041	4111.7488
33..47	4983942.9	62052255.7	80.. 94	1502.3115	2609.4373
34..48	4697389.4	57354866.3	81.. 95	956.1222	1653.3151
35..49	4429857.2	52925009.1	82.. 96	613.4684	1039.8467
36..50	4178188.7	48746820.4	83.. 97	398.6086	641.2381
37..51	3940703.2	44806117.2	84.. 98	254.3486	386.8895
38..52	3712286.2	41093831.0	85.. 99	162.4269	224.46258
39..53	3492784.1	37601046.9	86..100	105.89455	118.56803
40..54	3280742.1	34320304.8	87..101	64.18216	54.38587
41..55	3075715.9	31244588.9	88..102	34.71701	19.66886
42..56	2878242.3	28366346.6	89..103	15.70159	3.96727
43..57	2688864.0	25677482.6			
44..58	2506555.3	23170927.3			
45..59	2328200.6	20842726.7			
46..60	2153497.8	18689228.9			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &13	40717256.	531444469.3	50 & 63	1645115.8	12920849.4
1..14	33113372.5	495331096.8	51..64	1508174.2	11412675.2
2..15	29252236.5	469078860.3	52..65	1379222.0	10033453.2
3..16	26264636.9	442814223.4	53..66	1258405.6	8775047.6
4..17	24249831.7	415564401.7	54..67	1145375.9	7629671.7
5..18	22599470.3	395964931.4	55..68	1039653.4	6590018.3
6..19	21297206.7	374667724.7	56..69	940669.9	5649348.4
7..20	20181769.1	354485955.6	57..70	844262.3	4805086.1
8..21	19191311.9	335294643.7	58..71	760598.6	4064487.5
9..22	18292401.1	317002242.6	59..72	674889.1	3369598.4
10..23	17461006.7	299541235.9	60..73	590461.6	2799136.8
11..24	16676510.1	282864725.8	61..74	508316.2	2290820.6
12..25	15921159.2	266943566.6	62..75	430852.2	1859968.4
13..26	15193899.2	251749667.4	63..76	362433.2	1497535.2
14..27	14496418.0	237253249.4	64..77	302104.2	1195431.0
15..28	13820619.5	223432629.9	65..78	250168.5	945262.5
16..29	13155155.8	210277474.1	66..79	206555.4	738707.1
17..30	12500953.7	197776520.4	67..80	168461.79	570245.27
18..31	11873523.7	185902996.7	68..81	136607.68	433637.59
19..32	11275863.5	174627133.2	69..82	109016.11	324621.48
20..33	10708578.6	163918554.6	70..83	86065.92	238555.56
21..34	10170139.4	153748415.2	71..84	66962.13	171593.43
22..35	9658897.9	144089517.3	72..85	51221.51	120371.92
23..36	9171942.2	134917575.1	73..86	38034.18	82337.74
24..37	8706510.6	126211064.5	74..87	27323.41	55014.33
25..38	8261751.0	117949313.5	75..88	18825.73	36188.60
26..39	7835498.8	110113814.7	76..89	12635.13	23353.47
27..40	7425498.0	102688316.7	77..90	8727.23	14626.34
28..41	7026045.8	95662230.9	78..91	5565.17	9061.074
29..42	6636738.3	89025492.6	79..92	3422.746	5638.3283
30..43	6258012.6	82767460.0	80..93	2099.1046	3539.2237
31..44	5898044.4	76869415.6	81..94	1319.4488	2219.7749
32..45	5556967.9	71312447.7	82..95	828.1824	1391.5925
33..46	5235958.9	66076488.8	83..96	527.1598	864.4327
34..47	4933848.5	61142640.3	84..97	338.4654	525.9673
35..48	4649695.7	56492944.6	85..98	213.9605	312.0068
36..49	4384418.6	52108526.0	86..99	133.9565	178.05035
37..50	4134100.0	47974426.0	87..100	85.40814	92.64211
38..51	3897926.4	44076499.6	88..101	50.30495	42.33716
39..52	3670832.1	40405667.5	89..102	27.08525	15.25191
40..53	3451300.4	36954367.1	90..103	12.31837	2.93354
41..54	3238076.3	33716290.8			
42..55	3033347.2	30682943.6			
43..56	2836574.9	27846068.7			
44..57	2649654.8	25196413.9			
45..58	2469463.8	22726950.1			
46..59	2293723.3	20433226.8			
47..60	2121590.7	18311636.1			
48..61	1952266.9	16359369.2			
49..62	1793404.0	14565965.2			

TABLE XXVIII. 623

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 3½ per Cent.)

Difference of Age Fourteen Years.

Ages	D.	N.	Ages	D.	N.
0 &14	39136476.	507890389.6	47 & 61	1981199.1	16708029.8
1..15	31816836.8	476073552.8	48.. 62	1818748.3	14889281.5
2..16	28068068.6	447985484.2	49.. 63	1667938.6	13221342.9
3..17	25206230.9	422779253.4	50.. 64	1526686.4	11692656.5
4..18	23267779.0	399511474.4	51.. 65	1399220.2	10293436.3
5..19	21683210.6	377828263.8	52.. 66	1277830.0	9015606.3
6..20	20432740.4	357395523.4	53.. 67	1164175.2	7851431.1
7..21	19361614.2	338033909.2	54.. 68	1057521.3	6793909.8
8..22	18413543.0	319620366.2	55.. 69	957837.1	5636072.7
9..23	17550303.8	302070162.4	56.. 70	840226.7	4995846.0
10..24	16751711.3	285318451.1	57.. 71	776832.2	4219013.8
11..25	15996277.3	269320173.8	58.. 72	691630.7	3527383.1
12..26	15270250.4	254049923.4	59.. 73	607642.2	2919740.9
13..27	14571932.1	239477991.3	60.. 74	525929.0	2393811.9
14..28	13897400.7	225580590.6	61.. 75	446842.6	1946969.3
15..29	13237099.8	212343490.8	62.. 76	376518.0	1570451.3
16..30	12585378.9	199758111.9	63.. 77	314119.1	1256332.2
17..31	11956192.3	187801919.6	64.. 78	260530.1	995802.1
18..32	11354921.3	176446998.3	65.. 79	215405.7	780396.35
19..33	10784189.3	165662809.0	66.. 80	175939.52	604456.83
20..34	10242459.1	155420349.9	67.. 81	142953.13	461503.70
21..35	9726453.8	145693896.1	68.. 82	114326.61	347177.09
22..36	9235544.1	136457352.0	69.. 83	90510.81	256666.28
23..37	8768269.3	127689082.7	70.. 84	70608.73	166057.55
24..38	8320773.6	119368309.1	71.. 85	54424.35	131633.20
25..39	7893231.2	111475077.9	72.. 86	40814.85	90818.35
26..40	7480615.7	103994462.2	73.. 87	29638.71	61179.64
27..41	7081091.8	96913370.4	74.. 88	20691.46	40488.18
28..42	6694975.9	90216394.6	75.. 89	14190.65	26297.53
29..43	6320146.9	83898247.7	76.. 90	9729.03	16558.50
30..44	5958239.1	77940008.6	77.. 91	6235.01	10333.486
31..45	5614266.6	72325742.0	78.. 92	3840.696	6492.790
32..46	5269543.4	67036198.6	79.. 93	2381.041	4111.7488
33..47	4983942.9	62052255.7	80.. 94	1502.3115	2609.4373
34..48	4697389.4	57354866.3	81.. 95	956.1224	1653.3151
35..49	4429857.2	52925009.1	82.. 96	613.4684	1039.8467
36..50	4178188.7	48746820.4	83.. 97	398.6086	641.2381
37..51	3940703.2	44806117.2	84.. 98	254.3486	386.8895
38..52	3712286.2	41093831.0	85.. 99	162.4269	224.46258
39..53	3492784.1	37601046.9	86..100	105.89455	118.56803
40..54	3280742.1	34320304.8	87..101	64.18216	54.38587
41..55	3075715.9	31244588.9	88..102	34.71701	19.66886
42..56	2878242.3	28366346.6	89..103	15.70159	3.96727
43..57	2688864.0	25677482.6			
44..58	2506555.3	23170927.3			
45..59	2328200.6	20842726.7			
46..60	2153497.8	18689228.9			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Liv
(Carlisle 3½ per Cent.)

Difference of Age Fifteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &15	37604109.	485212102.4	46 & 61	2010994.6	17046785.3
1..16	30550604.0	454661498.4	47.. 62	1845701.5	15201083.8
2..17	26956182.2	427705316.2	48.. 63	1691509.7	13509574.1
3..18	24185456.4	403519859.8	49.. 64	1549894.1	11959680.0
4..19	22324423.6	381195436.2	50.. 65	1418250.5	10541429.5
5..20	20803076.1	360392360.1	51.. 66	1296357.9	9245071.6
6..21	19602386.4	340789973.7	52.. 67	1182145.1	8062926.5
7..22	18576943.4	322213030.3	53.. 68	1074878.6	6984047.9
8..23	17666430.3	304546600.0	54.. 69	974298.8	6013749.1
9..24	16837285.0	287709315.0	55.. 70	855560.8	5158188.3
10..25	16070420.1	271638894.9	56.. 71	791877.8	4366310.5
11..26	15344215.7	256294679.2	57.. 72	706392.3	3659918.2
12..27	14645157.9	241649521.3	58.. 73	622715.8	3037202.4
13..28	13969794.3	227679727.0	59.. 74	541231.6	2495970.8
14..29	13310639.2	214369087.8	60.. 75	462325.3	2033645.5
15..30	12663773.6	201705314.2	61.. 76	390492.0	1643153.5
16..31	12036938.4	189668375.8	62.. 77	326326.3	1316827.2
17..32	11433979.3	178234396.5	63.. 78	270891.5	1045935.7
18..33	10859799.9	167374596.6	64.. 79	224327.4	821608.31
19..34	10314778.4	157059818.2	65.. 80	183478.06	638130.25
20..35	9795618.3	147264199.9	66.. 81	149298.58	488831.67
21..36	9301146.1	137963053.8	67.. 82	119637.09	369194.58
22..37	8830028.1	129133025.7	68.. 83	94919.84	274274.74
23..38	8379796.1	120753229.6	69.. 84	74255.33	200019.41
24..39	7949621.0	112803608.6	70.. 85	57388.17	142631.24
25..40	7535733.2	105267875.4	71.. 86	43366.96	99264.28
26..41	7133652.9	98134222.5	72.. 87	31805.58	67458.70
27..42	6747389.4	91386833.1	73.. 88	22444.77	45013.93
28..43	6375606.2	85011226.9	74.. 89	15597.00	29416.93
29..44	6017377.9	78993849.0	75.. 90	10756.52	18660.41
30..45	5671565.3	73322283.7	76.. 91	6950.73	11709.676
31..46	5344084.5	67978199.2	77.. 92	4302.971	7406.705
32..47	5034948.1	62943251.1	78.. 93	2671.788	4734.917
33..48	4745082.9	58198168.2	79.. 94	1704.090	3030.8272
34..49	4475295.9	53722872.3	80.. 95	1088.6315	1942.1957
35..50	4221490.0	49501382.3	81.. 96	708.2386	1233.9571
36..51	3982729.2	45518653.1	82.. 97	463.8703	770.0868
37..52	3753025.6	41765627.5	83.. 98	299.5447	470.5421
38..53	3532227.4	38233400.1	84.. 99	193.0873	277.4547
39..54	3320175.6	34913224.5	85..100	128.40074	149.0540
40..55	3116242.3	31796982.2	86..101	79.57722	69.4767
41..56	2918444.6	28878537.6	87..102	44.29412	25.1826
42..57	2728073.1	26150464.5	88..103	20.12580	5.0568
43..58	2543647.0	23606817.5			
44..59	2363170.4	21243647.1			
45..60	2185867.2	19057779.9			

TABLE XXVIII. 625

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Sixteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &16	36107557.	463395528.5	45 & 61	2041222.1	17377533.4
1..17	29319482.9	434076045.6	46.. 62	1873459.5	15504073.9
2..18	25864540.3	405211505.3	47.. 63	1716577.5	13787496.4
3..19	23204695.4	385006609.9	48.. 64	1571797.1	12215699.3
4..20	21418262.2	363588347.7	49.. 65	1437926.1	10777773.2
5..21	19957672.3	343630675.4	50.. 66	1313989.3	9463783.9
6..22	18807957.8	324822717.6	51.. 67	1199285.7	8264498.2
7..23	17823201.0	306999516.6	52.. 68	1091470.2	7173028.0
8..24	16948790.2	290050726.4	53.. 69	990290.3	6182737.7
9..25	16152513.5	273898212.9	54.. 70	870264.9	5312472.8
10..26	15413409.0	258484803.9	55.. 71	806329.5	4506143.3
11..27	14716095.4	243768708.5	56.. 72	720073.7	3786069.6
12..28	14039994.4	229728714.1	57.. 73	636006.4	3150063.2
13..29	13379976.4	216348737.7	58.. 74	554658.0	2595405.2
14..30	12734127.9	203614609.8	59.. 75	475777.6	2119627.6
15..31	12111917.0	191502692.8	60.. 76	404022.1	1715605.5
16..32	11511198.7	179991494.1	61.. 77	338437.5	1377168.0
17..33	10935410.7	169056083.4	62.. 78	281418.9	1095749.1
18..34	10387098.0	158668985.4	63.. 79	233249.1	862500.04
19..35	9864782.8	148804202.6	64.. 80	191077.38	671422.66
20..36	9367286.2	139436916.4	65.. 81	155695.62	515727.04
21..37	8891786.8	130545129.6	66.. 82	124847.58	390779.46
22..38	8438818.7	122106310.9	67.. 83	99328.89	291450.57
23..39	8006010.8	114100300.1	68.. 84	77872.51	213578.06
24..40	7589569.0	106510731.1	69.. 85	60352.00	153226.06
25..41	7186214.1	99324517.0	70.. 86	45728.63	107497.43
26..42	6797473.8	92527043.2	71.. 87	33794.36	73703.07
27..43	6425519.8	86101523.4	72.. 88	24085.70	49617.37
28..44	6070180.5	80031342.9	73.. 89	16918.63	32698.74
29..45	5727858.7	74303484.2	74.. 90	11822.53	20876.21
30..46	5398625.8	68904858.4	75.. 91	7684.79	13191.421
31..47	5086864.2	63817994.2	76.. 92	4796.911	8394.510
32..48	4793643.7	59024350.5	77.. 93	2993.370	5401.140
33..49	4520734.5	54503616.0	78.. 94	1912.175	3488.965
34..50	4264791.4	50238824.6	79.. 95	1234.849	2254.1156
35..51	4024004.9	46214819.7	80.. 96	806.3937	1447.7219
36..52	3793050.2	42421769.5	81.. 97	535.5303	912.1916
37..53	3570990.9	38850778.6	82.. 98	348.5874	563.6042
38..54	3357669.8	35493108.8	83.. 99	227.3977	336.20649
39..55	3153698.6	32339410.2	84..100	152.63819	183.56830
40..56	2956898.8	29382511.4	85..101	96.49009	87.07821
41..57	2766177.8	26616333.6	86..102	54.91872	32.15949
42..58	2580738.6	24035595.0	87..103	25.67774	6.48175
43..59	2398140.2	21637454.8			
44..60	2218699.3	19418755.5			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 3½ per Cent.)

Difference of Age Seventeen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &17	34652503.	442422234.2	45 & 62	1901619.7	15800035.1
1..18	28132134.6	414290099.6	46.. 63	1742393.5	14057641.6
2..19	24815903.4	389474196.2	47.. 64	1595090.6	12462551.0
3..20	22262994.9	367211201.3	48.. 65	1458246.7	11004304.3
4..21	20547858.1	346663343.2	49.. 66	1332218.6	9672085.7
5..22	19148845.1	327514498.1	50.. 67	1215596.8	8456488.9
6..23	18044842.1	309469656.0	51.. 68	1107296.0	7349192.9
7..24	17099192.7	292370463.3	52.. 69	1005576.2	6343616.7
8..25	16259484.0	276110979.3	53.. 70	884548.7	5459068.0
9..26	15492146.2	260618833.1	54.. 71	820187.4	4638880.6
10..27	14782456.2	245836376.9	55.. 72	733215.0	3905665.6
11..28	14108000.6	231728376.3	56.. 73	648324.6	3257341.0
12..29	13447212.5	218281163.8	57.. 74	566496.1	2690844.9
13..30	12800462.0	205480701.8	58.. 75	487580.0	2203264.9
14..31	12179205.4	193301496.4	59.. 76	415777.9	1787487.0
15..32	11582902.3	181718594.1	60.. 77	350164.1	1437322.9
16..33	11009262.9	170709331.2	61.. 78	291863.3	1145459.6
17..34	10459417.4	160249913.8	62.. 79	242313.6	903145.95
18..35	9933947.2	150315966.6	63.. 80	198676.70	704469.25
19..36	9433426.3	140882540.3	64.. 81	162144.25	542325.00
20..37	8955016.0	131927524.3	65.. 82	130301.26	412023.74
21..38	8497841.2	123429683.1	66.. 83	103737.92	308285.82
22..39	8062400.7	115367282.4	67.. 84	81489.71	226796.11
23..40	7643404.8	107723877.6	68.. 85	63291.91	163504.20
24..41	7237553.0	100486324.6	69.. 86	48090.29	115413.91
25..42	6847557.9	93638766.7	70.. 87	35634.73	79779.18
26..43	6473214.8	87165551.9	71.. 88	25591.75	54187.43
27..44	6117702.9	81047849.0	72.. 89	18155.56	36031.87
28..45	5778120.7	75269728.3	73.. 90	12824.33	23207.54
29..46	5452210.2	69817518.1	74.. 91	8446.40	14761.142
30..47	5138780.3	64678737.8	75.. 92	5303.515	9457.627
31..48	4843071.8	59835666.0	76.. 93	3336.981	6120.646
32..49	4566999.4	55268666.6	77.. 94	2142.331	3978.315
33..50	4308092.8	50960573.8	78.. 95	1385.635	2592.680
34..51	4065280.7	46895293.1	79.. 96	914.702	1677.9784
35..52	3832360.1	43062933.0	80.. 97	609.7497	1068.2287
36..53	3609074.2	39453858.8	81.. 98	402.4381	665.7906
37..54	3394517.6	36059341.2	82.. 99	264.6281	401.1625
38..55	3189312.8	32870028.4	83..100	179.76103	221.4015
39..56	2992439.8	29877588.6	84..101	114.70394	106.6975
40..57	2802625.7	27074962.9	85..102	66.59082	40.10674
41..58	2616785.3	24458177.6	86..103	31.83693	8.26981
42..59	2433110.1	22025067.5			
43..60	2251531.2	19773536.3			
44..61	2071881.5	17701654.8			

TABLE XXVIII. 627

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Eighteen Years.

Ages	D.	N.	Ages.	D.	N.
0 &18	33249184.	422264894.2	46 & 64	1619079.6	12702614.5
1..19	26991561.6	395273332.6	47.. 65	1479857.5	11222757.0
2..20	23808611.1	371464721.5	48.. 66	1351045.4	9871711.6
3..21	21358262.3	350106459.2	49.. 67	1232460.9	8639250.7
4..22	19715112.3	330391346.9	50.. 68	1122356.0	7516894.7
5..23	18371898.2	312019448.7	51.. 69	1020156.5	6496738.2
6..24	17311830.4	294707618.3	52.. 70	898202.3	5598535.9
7..25	16403769.4	278303848.9	53.. 71	833649.4	4764886.5
8..26	15594743.3	262709105.6	54.. 72	745816.2	4019070.3
9..27	14857970.3	247851135.8	55.. 73	660156.5	3358913.8
10..28	14171619.3	233679516.0	56.. 74	577468.0	2781445.8
11..29	13512347.4	220167168.6	57.. 75	497986.5	2283459.3
12..30	12864785.9	207302382.7	58.. 76	426092.0	1857367.3
13..31	12242648.8	195059733.9	59.. 77	360352.8	1497014.5
14..32	11647251.8	183412482.1	60.. 78	301976.2	1195038.3
15..33	11077840.0	172334642.1	61.. 79	251306.7	943731.62
16..34	10530035.0	161804587.1	62.. 80	206397.62]	737334.00
17..35	10003111.7	151801475.4	63.. 81	168592.87	568741.13
18..36	9499566.3	142301909.1	64.. 82	135698.08	433043.05
19..37	9018245.2	133283663.9	65.. 83	108182.82	324860.23
20..38	8553269.0	124725394.9	66.. 84	85106.89	239753.34
21..39	8118790.5	116606604.4	67.. 85	66231.84	173521.50
22..40	7697240.7	108909363.7	68.. 86	50432.91	123088.59
23..41	7288891.8	101620471.9	69.. 87	37475.09	85613.50
24..42	6896477.3	94723994.6	70.. 88	26985.43	58628.07
25..43	6520909.8	88203084.8	71.. 89	19290.81	39337.26
26..44	6163113.0	82039971.8	72.. 90	13761.91	25575.35
27..45	5823356.5	76216615.3	73.. 91	9162.11	16413.241
28..46	5500053.4	70716561.9	74.. 92	5829.117	10584.124
29..47	5189785.6	65526776.3	75.. 93	3689.402	6894.722
30..48	4892499.7	60634276.6	76.. 94	2388.249	4506.473
31..49	4614090.4	56020186.2	77.. 95	1552.414	2954.059
32..50	4352181.5	51668004.7	78.. 96	1026.396	1927.663
33..51	4106556.3	47561448.4	79.. 97	691.647	1236.0164
34..52	3871670.1	43689778.3	80.. 98	458.2120	777.8044
35..53	3646477.4	40043300.9	81.. 99	305.5085	472.29593
36..54	3430718.9	36612582.0	82..100	209.19222	263.10371
37..55	3224313.0	33388269.0	83..101	135.08611	128.01760
38..56	3026235.0	30362036.0	84..102	79.16078	48.85682
39..57	2836312.4	27525723.6	85..103	38.60338	10.25344
40..58	2651264.8	24874458.8			
41..59	2467094.9	22407363.9			
42..60	2284363.1	20123000.8			
43..61	2102540.9	18020459.9			
44..62	1930182.2	16090277.7			
45..63	1768583.6	14321694.1			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &19	31901149.	402892532.6	45 & 64	1643416.3	12937443.1
1..20	25895958.3	376996574.3	46.. 65	1502113.6	11435329.5
2..21	22841067.2	354155507.1	47.. 66	1371067.5	10064262.0
3..22	20492673.0	333662834.1	48.. 67	1249878.0	8814384.0
4..23	18915189.6	314747644.5	49.. 68	1137926.5	7676457.5
5..24	17625600.9	297122043.6	50.. 69	1034031.3	6642426.2
6..25	16607759.3	280514284.3	51.. 70	911225.8	5731200.4
7..26	15733129.8	264781154.5	52.. 71	846517.3	4884683.1
8..27	14956367.6	249824786.9	53.. 72	758057.6	4126625.5
9..28	14244013.1	235580773.8	54.. 73	671502.1	3455123.4
10..29	13573280.1	222007493.7	55.. 74	588006.8	2867116.6
11..30	12927099.7	209080394.0	56.. 75	507631.5	2359485.1
12..31	12304169.6	196776224.4	57.. 76	435186.1	1924299.0
13..32	11707924.1	185068300.3	58.. 77	369291.9	1555007.1
14..33	11139383.5	173928916.8	59.. 78	310762.7	1244244.4
15..34	10595647.2	163333269.6	60.. 79	260014.3	984230.14
16..35	10070667.8	153262601.8	61.. 80	214057.73	770172.41
17..36	9565706.5	143696895.3	62.. 81	175144.68	595027.73
18..37	9081474.4	134615420.9	63.. 82	141094.92	453932.81
19..38	8618697.0	125996723.9	64.. 83	112663.55	341269.26
20..39	8176522.9	117820201.0	65.. 84	88753.49	252515.77
21..40	7751076.6	110069124.4	66.. 85	69171.74	183344.03
22..41	7340230.6	102728693.8	67.. 86	52775.53	130568.50
23..42	6945396.7	95783497.1	68.. 87	39300.60	91267.90
24..43	6567495.7	89216001.4	69.. 88	28379.09	62888.81
25..44	6208523.3	83007478.1	70.. 89	20341.34	42547.47
26..45	5866581.9	77140896.2	71.. 90	14622.44	27925.03
27..46	5543112.3	71597783.9	72.. 91	9831.94	18093.088
28..47	5235326.0	66362457.9	73.. 92	6323.057	11770.031
29..48	4941060.4	61421397.5	74.. 93	4056.038	7714.993
30..49	4661181.4	56760216.1	75.. 94	2640.473	5074.520
31..50	4397057.4	52363158.7	76.. 95	1730.616	3343.904
32..51	4148582.5	48214576.2	77.. 96	1149.935	2193.969
33..52	3910980.0	44303596.2	78.. 97	776.102	1417.867
34..53	3683880.7	40619715.5	79.. 98	519.756	898.1110
35..54	3466273.7	37153441.8	80.. 99	347.8491	550.2618
36..55	3258699.1	33894742.7	81..100	241.50881	308.7530
37..56	3059443.4	30835299.3	82..101	157.20295	151.5500
38..57	2868342.5	27966956.8	83..102	93.22716	58.3229
39..58	2683132.3	25283824.5	84..103	45.89029	12.4326
40..59	2499602.0	22784222.5			
41..60	2316270.3	20467952.2			
42..61	2133200.2	18334752.0			
43..62	1958744.7	16376007.3			
44..63	1795147.9	14580859.4			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty Years.

Ages	D.	N.	Ages	D.	N.
0 & 20	30606262.	384275401.4	45 & 65	1524691.9	11643445.9
1..21	24843587.7	359431813.7	46.. 66	1391687.2	10251758.7
2..22	21915384.0	337516429.7	47.. 67	1270100.7	8983357.9
3..23	19661201.6	317855228.1	48.. 68	1154007.7	7829350.2
4..24	18146822.8	299708405.3	49.. 69	1048376.6	6780973.6
5..25	16908768.7	282799636.6	50.. 70	923619.1	5857354.5
6..26	15928779.9	266870856.7	51.. 71	858791.4	4998563.1
7..27	15089089.2	251781767.5	52.. 72	769758.8	4228804.3
8..28	14336344.3	237443423.2	53.. 73	682523.7	3546280.6
9..29	13642617.2	223800806.0	54.. 74	598112.4	2948168.2
10..30	12985393.2	210815412.8	55.. 75	516895.7	2431272.5
11..31	12363767.9	198451644.9	56.. 76	443614.8	1987657.7
12..32	11766757.9	186684887.0	57.. 77	377173.6	1610484.1
13..33	11197410.2	175487476.8	58.. 78	318471.7	1292012.4
14..34	10654511.9	164887904.7	59.. 79	267579.7	1024432.65
15..35	10133398.3	154699566.6	60.. 80	221474.67	802957.98
16..36	9630308.4	145069258.2	61.. 81	181644.89	621313.09
17..37	9144703.6	135924554.6	62.. 82	146578.10	474734.99
18..38	8679124.7	127245429.9	63.. 83	117144.27	357590.72
19..39	8234255.3	119011174.6	64.. 84	92429.50	265161.22
20..40	7806194.2	111204980.4	65.. 85	72135.58	193025.64
21..41	7391569.4	103813411.0	66.. 86	55118.13	137907.51
22..42	6994316.2	96819094.8	67.. 87	41126.12	96781.39
23..43	6614081.5	90205013.3	68.. 88	29761.51	67019.88
24..44	6252877.3	83952136.0	69.. 89	21391.87	45628.01
25..45	5909807.3	78042328.7	70.. 90	15418.74	30209.27
26..46	5584257.4	72458071.3	71.. 91	10446.72	19762.552
27..47	5276312.2	67181759.1	72.. 92	6785.334	12977.218
28..48	4984418.1	62197341.0	73.. 93	4398.647	8578.571
29..49	4707446.1	57489894.9	74.. 94	2902.156	5676.415
30..50	4441933.4	53047961.5	75.. 95	1913.387	3763.028
31..51	4191359.2	48856602.3	76.. 96	1261.938	2481.090
32..52	3951004.6	44905597.7	77.. 97	869.516	1611.574
33..53	3721283.9	41184313.8	78.. 98	583.222	1028.352
34..54	3501828.5	37682485.3	79.. 99	394.569	633.78251
35..55	3292471.2	34390014.1	80..100	274.97956	359.80295
36..56	3092071.3	31297942.8	81..101	181.48809	177.31486
37..57	2899820.2	28398122.6	82..102	108.49067	68.82419
38..58	2713432.3	25684690.3	83..103	54.04471	14.77948
39..59	2529646.5	23155043.8			
40..60	2346790.1	20808253.7			
41..61	2162996.0	18645257.7			
42..62	1987307.2	16657950.5			
43..63	1821712.2	14836238.3			
44..64	1668100.5	13168137.8			

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 3½ per Cent.)

Difference of Age Twenty-One Years.

Ages	D.	N.	Ages	D.	N.
0 &21	29362471.	366384860.4	42 & 63	1848276.5	15088458.7
1..22	23836748.1	342548112.3	43..64	1692784.7	13395674.0
2..23	21026187.5	321521924.8	44..65	1547593.0	11848081.0
3..24	18862530.7	302659394.1	45..66	1412605.9	10435475.1
4..25	17408792.5	285250601.6	46..67	1287476.5	9147998.6
5..26	16217483.1	269033118.5	47..68	1171109.7	▬▬▬▬
6..27	15276730.2	253756388.3	48..69	1063192.1	6913696.8
7..28	14465581.8	239290805.5	49..70	936432.8	5977264.2
8..29	13732965.8	225557840.7	50..71	870471.6	5106792.6
9 .30	13051727.3	212506113.4	51..72	780919.9	4325872.7
10..31	12419521.2	200086592.2	52..73	693059.0	3632813.7
11..32	11823751.2	188262839.0	53..74	607929.5	3024884.2
12..33	11253678.7	177009160.3	54..75	525779.3	2499104.9
13..34	10710012.9	166299147.4	55..76	451710.7	2047394.2
14..35	10189695.0	156109452.4	56..77	384478.8	1662915.4
15..36	9690296.1	146419156.3	57..78	325268.8	1337646.6
16..37	9206462.3	137212694.0	58..79	274217.5	1063429.1
17..38	8739552.6	128473141.4	59..80	227918.90	835510.22
18..39	8291987.8	120181153.6	60..81	187938.75	647571.47
19..40	7861311.8	112319841.8	61..82	152018.11	495553.36
20..41	7444130.6	104875711.2	62..83	121696.70	373856.66
21..42	7043235.6	97832475.6	63..84	96105.50	277751.16
22..43	6660667.4	91171808.2	64..85	75123.30	202627.86
23..44	6297231.5	84874576.7	65..86	57479.80	145148.06
24..45	5952027.3	78922549.4	66..87	42951.64	102196.42
25..46	5625402.4	73297147.0	67..88	31143.95	71052.47
26..47	5315477.0	67981670.0	68..89	22433.93	48618.54
27..48	5023440.4	62958229.6	69..90	16215.05	32403.49
28..49	4748754.0	58209475.6	70..91	11015.63	21387.860
29..50	4486021.9	53723453.7	71..92	7209.615	14178.245
30..51	4234133.8	49489317.9	72..93	4720.232	9458.013
31..52	3991743.9	45497574.0	73..94	3148.075	6309.938
32..53	3759367.2	41738206.8	74..95	2103.012	4206.926
33..54	3537383.3	38200823.5	75..96	1417.323	2789.603
34..55	3326243.3	34874580.2	76..97	969.329	1820.274
35..56	3124116.5	31750463.7	77..98	653.421	1166.853
36..57	2930745.8	28819717.9	78..99	442.750	724.1028
37..58	2743210.1	26076507.8	79..100	311.9128	412.19000
38..59	2558213.3	23518294.5	80..101	206.64056	205.54944
39..60	2374997.8	21143296.7	81..102	125.25060	80.29884
40..61	2191406.2	18951800.5	82..103	62.89313	17.40571
41..62	2015065.3	16936735.2			

Difference of Age Twenty-Two Years.

Ages	D.	N.	Ages.	D.	N.
0 &22	28172495.	349189929.9	5 & 27	15353615.9	255801195.9
1..23	22669594.1	326319335.8	6..28	14645469.9	241155726.0
2..24	20172068.5	306147267.3	7..29	13854831.1	227300894.9
3..25	18095392.5	288051874.8	8..30	13138162.6	214162732.3
4..26	16697064.4	271354810.4	9..31	12482964.6	201679767.7

TABLE XXVIII. .631

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Two Years—continued.

Ages.	D.	N.	Ages.	D.	N.
10 &32	11877071.3	189802696.4	46 & 68	1188722.3	8120747.3
11..33	11308188.7	178494507.7	47.. 69	1078948.3	7041799.0
12..34	10763832.1	167730675.6	48.. 70	949666.2	6092132.8
13..35	10242774.7	157487900.9	49.. 71	882547.8	5209585.0
14..36	9744131.1	147743769.8	50.. 72	791540.9	4418044.1
15..37	9263809.7	138479960.1	51.. 73	703107.9	3714936.2
16..38	8798575.1	129681385.0	52.. 74	617313.3	3097622.9
17..39	8349720.1	121331664.9	53.. 75	534409.1	2563213.8
18..40	7916429.4	113415235.5	54.. 76	459474.0	2103739.8
19..41	7496691.8	105918543.7	55.. 77	391495.5	1712244.3
20..42	7093319.8	98825223.9	56.. 78	331568.7	1380675.6
21..43	6707253.3	92117970.6	57.. 79	280070.3	1100605.3
22..44	6341585.6	85776385.0	58.. 80	233572.80	867032.49
23..45	5994247.4	79782137.6	59.. 81	193407.18	673625.31
24..46	5665590.9	74116546.7	60.. 82	157285.43	516339.88
25..47	5354641.9	68761904.8	61.. 83	126213.29	390126.59
26..48	5060728.0	63701176.8	62.. 84	99840.33	290286.26
27..49	4785931.1	58915245.7	63.. 85	78111.02	212175.24
28..50	4525386.9	54389858.8	64.. 86	59860.52	152314.72
29..51	4276161.9	50113696.9	65.. 87	44792.00	107522.72
30..52	4032483.3	46081213.6	66.. 88	32526.39	74996.33
31..53	3798130.6	42283083.0	67.. 89	23475.99	51520.34
32..54	3573584.6	38709498.4	68.. 90	17004.92	34515.42
33..55	3360015.4	35349483.0	69.. 91	11584.54	22930.882
34..56	3156161.7	32193321.3	70.. 92	7602.233	15328.649
35..57	2961119.1	29232202.2	71.. 93	5015.384	10313.265
36..58	2772465.5	26459736.7	72.. 94	3378.230	6935.035
37..59	2586287.7	23873449.0	73.. 95	2281.214	4653.821
38..60	2401818.3	21471630.7	74.. 96	1557.785	3096.036
39..61	2217837.3	19253793.4	75.. 97	1071.700	2024.336
40..62	2041616.3	17212177.1	76.. 98	728.427	1295.909
41..63	1874092.5	15338084.6	77.. 99	496.040	799.8688
42..64	1717469.0	13620615.6	78..100	330.0002	469.8686
43..65	1570493.9	12050121.7	79..101	234.3950	235.47357
44..66	1433823.3	10616298.4	80..102	142.60912	92.86445
45..67	1306828.8	9309469.6	81..103	72.60902	20.25543

Difference of Age Twenty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 &23	27029422.	332660839.9	10 &33	11359181.9	179944072.1
1..24	21940592.7	310720247.2	11..34	10815969.4	169128102.7
2..25	19351671.5	291368575.7	12..35	10294245.9	158833856.8
3..26	17355594.1	274012981.6	13..36	9794889.7	149038967.1
4..27	16013564.7	257999416.9	14..37	9315275.3	139723691.8
5..28	14910912.8	243088504.1	15..38	8853381.8	130870310.0
6..29	14027123.5	229061380.6	16..39	8406109.9	122464200.1
7..30	13254749.7	215806630.9	17..40	7971547.0	114492653.1
8..31	12565633.3	203240997.6	18..41	7549252.9	106943400.2
9..32	11937743.6	191303254.0	19..42	7143404.2	99799996.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives—
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Three Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 &43	6754948.3	93045047.7	51 & 74	626264.0	3166655.4
21..44	6385939.7	86659108.0	52.. 75	542658.0	2623997.4
22..45	6036467.5	80622640.5	53.. 76	467015.4	2156982.0
23..46	5705779.1	74916861.4	54.. 77	398223.9 '	1758758.1
24..47	5392895.8	69523965.6	55.. 78	337619.8	1421138.3
25..48	5098015.9	64425949.7	56.. 79	285494.7	1135643.64
26..49	4821455.9	59604493.8	57.. 80	238557.95	897085.69
27..50	4560815.3	55043678.5	58.. 81	198204.96	698880.73
28..51	4313685.3	50729993.2	59.. 82	161861.95	537018.78
29..52	4072508.0	46657465.2	60.. 83	130586.48	406432.30
30..53	3836894.0	42820591.2	61.. 84	103545.75	302886.55
31..54	3610432.4	39210158.8	62.. 85	81146.56	221739.99
32..55	3394401.6	35815757.2	63.. 86	62241.21	159498.78
33..56	3188207.0	32627550.2	64.. 87	46647.19	112851.59
34..57	2991492.3	29636057.9	65.. 88	33920.04	78931.55
35..58	2801198.4	26834859.5	66.. 89	24518.05	54413.50
36..59	2613869.5	24220990.0	67.. 90	17794.81	36618.69
37..60	2428176.3	21792813.7	68.. 91	12148.86	24469.825
38..61	2242883.0	19549930.7	69.. 92	7994.852	16474.973
39..62	2066156.0	17483774.7	70.. 93	5288.510	11186.463
40..63	1898786.1	15584988.6	71.. 94	3589.469	7596.994
41..64	1741458.1	13843530.5	72.. 95	2447.993	5149.001
42..65	1593395.0	12250135.5	73.. 96	1689.788	3459.213
43..66	1455040.8	10795094.7	74.. 97	1177.911	2281.302
44..67	1326457.5	9468637.2	75.. 98	805.357	1475.945
45..68	1205590.1	8262047.1	76.. 99	552.981	922.9638
46..69	1095174.9	7166872.2	77..100	392.1272	530.8366
47..70	963740.0	6203132.2	78..101	263.0168	267.8198
48..71	895019.9	5308112.3	79..102	161.7633	106.05649
49..72	802522.1	4505590.2	80..103	82.67194	23.38455
50..73	712670.8	3792919.4			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 &24	25931442.	316774435.7	15 &39	8458472:0	123578768.9
1..25	21048270.0	295726165.7	16..40	8025382.8	115553386.1
2..26	18560512.3	277165653.4	17..41	7601814.1	107951572.0
3..27	16645137.2	260520516:2	18..42	7193488.3	100758083.7
4..28	15351856.4	245168659.8	19..43	6802643.4	93955440.3
5..29	14281359.8	230887300.0	20..44	6431349.8	87524090.5
6..30	13419579.8	217467720.2	21..45	6078687.6	81445402.9
7..31	12677139.8	204790580.4	22..46	5745967.5	75699435.4
8..32	12016801.5	192773778.9	23..47	5431149.7	70268285.7
9..33	11417208.7	181356570.2	24..48	5134436.4	65133849.3
10..34	10864743.0	170491827.2	25..49	4856980.7	60276868.6
11..35	10344108.7	160147718.5	26..50	4594669.1	55682199.5
12..36	9844110.3	150303608.2	27..51	4347456.3	51334743.2
13..37	9363800.0	140939808.2	28..52	4108244.3	47226498.9
14..38	8902567.3	132037240.9	29..53	3874977.2	43351521.7

TABLE XXVIII. 632

Prepantory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Four Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
30 &54	3647260.1	39704241.6	55 & 79	290704.9	1168475.72
31..55	3429401.7	36274839.9	56.. 80	243178.34	925297.38
32..56	3220834.8	33054005.1	57.. 81	202435.26	722862.12
33..57	3021865.6	30032139.5	58.. 82	165877.20	556984.92
34..58	2829931.4	27202208.1	59.. 83	134386.13	422598.79
35..59	2640958.8	24561249.3	60.. 84	107133.52	315465.27
36..60	2454071.9	22107177.4	61.. 85	84158.18	231307.09
37..61	2267496.9	19839680.5	62.. 86	64660.02	166647.07
38..62	2089488.7	17750191.8	63.. 87	48502.40	118144.67
39..63	1921608.9	15828582.9	64.. 88	35324.95	82819.72
40..64	1764404.0	14064178.9	65.. 89	25568.59	57251.13
41..65	1615650.9	12448528.0	66.. 90	18584.68	38666.45
42..66	1476258.3	10972269.7	67.. 91	12713.17	25953.278
43..67	1346086.1	9626183.6	68.. 92	8384.304	17568.974
44..68	1224713.1	8401470.5	69.. 93	5561.636	12007.338
45..69	1111636.7	7289833.8	70.. 94	3784.942	8222.396
46..70	978233.9	6311599.9	71.. 95	2601.063	5621.333
47..71	908283.8	5403316.1	72.. 96	1813.327	3808.006
48..72	813863.3	4589452.8	73.. 97	1277.723	2530.283
49..73	722557.8	3866895.0	74.. 98	885.171	1645.112
50..74	634781.6	3232113.4	75.. 99	611.381	1033.7311
51..75	550526.4	2681587.0	76..100	437.1396	596.5915
52..76	474224.1	2207362.9	77..101	294.6743	301.9172
53..77	404760.0	1802602.9	78..102	181.5161	120.4011
54..78	343422.3	1459180.6	79..103	93.7757	26.62543

Difference of Age Twenty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 &25	24876811.	301504248.8	20 & 45	6121912.9	82251742.1
1..26	20187748.3	281316500.5	21.. 46	5786155.7	76465596.4
2..27	17800731.6	263515768.9	22.. 47	5469403.7	70996182.7
3..28	15957331.2	247558437.7	23.. 48	5170857.0	65825325.7
4..29	14703686.3	232854751.4	24.. 49	4891679.3	60933646.4
5..30	13662804.6	219191946.8	25.. 50	4628522.8	56305123.6
6..31	12834786.8	206357160.0	26.. 51	4379726.4	51925397.2
7..32	12123437.7	194233722.3	27.. 52	4140407.0	47784990.2
8..33	11492319.4	182740902.9	28.. 53	3908980.2	43876010.0
9..34	10920243.9	171820659.0	29.. 54	3683481.4	40192528.6
10..35	10390754.4	161429904.6	30.. 55	3464401.8	36728126.8
11..36	9891792.7	151538111.9	31.. 56	3254045.3	33474081.5
12..37	9410854.3	142127257.6	32.. 57	3052791.1	30421290.4
13..38	8948942.0	133178315.6	33.. 58	2858664.2	27562626.2
14..39	8505463.5	124672852.1	34.. 59	2668048.1	24894578.1
15..40	8075373.3	116597478.8	35.. 60	2479505.1	22415073.0
16..41	7653153.0	108944325.8	36.. 61	2291678.9	20123394.1
17..42	7243572.4	101700753.4	37.. 62	2112419.2	18010974.9
18..43	6850338.3	94850415.1	38.. 63	1943309.4	16067665.5
19..44	6476760.1	88373655.0	39.. 64	1785611.7	14282053.8

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Five Years—continued.

Ages.	D.	N.	Ages.	D.	N.
40 &65	1636939.1	12645114.7	60 & 85	87074.19	240673.00
41..66	1496878.2	11148236.5	61.. 86	67059.77	173813.23
42..67	1365714.9	9782521.6	62.. 87	50387.29	123425.94
43..68	1242836.2	8539685.4	63.. 88	36729.85	86696.09
44..69	1128313.4	7411352.0	64.. 89	26627.59	60068.50
45..70	992937.8	6418414.2	65.. 90	19380.99	40687.51
46..71	921943.6	5496470.6	66.. 91	13277.47	27410.041
47..72	825924.4	4670546.2	67.. 92	8773.757	18636.284
48..73	732768.9	3937777.3	68.. 93	5832.559	12803.725
49..74	643588.0	3294189.3	69.. 94	3960.416	8823.309
50..75	558013.7	2736175.6	70.. 95	2742.711	6080.596
51..76	481100.2	2255075.4	71.. 96	1926.714	4153.884
52..77	411007.7	1844067.7	72.. 97	1371.136	2782.748
53..78	349058.9	1495008.8	73.. 98	960.178	1822.570
54..79	295701.1	1199307.65	74.. 99	671.972	1150.5979
55..80	247616.34	951691.31	75..100	483.3060	667.2919
56..81	206356.02	745335.29	76..101	328.5000	338.7919
57..82	169417.52	575917.77	77..102	203.3639	135.4280
58..83	137719.80	438197.97	78..103	105.2266	30.2014
59..84	110250.78	347947.19			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 &26	23859766.	286829000.6	25 & 51	4411996.5	52501601.0
1..27	19361356.3	267467644.3	26.. 52	4171140.2	48330463.8
2..28	17065174.5	250402469.8	27.. 53	3939582.9	44390880.9
3..29	15283597.5	235118872.3	28.. 54	3715803.9	40675077.0
4..30	14066839.4	221052032.9	29.. 55	3498787.9	37176289.1
5..31	13067412.7	207984620.2	30.. 56	3287255.8	33889033.3
6..32	12274199.3	195710420.9	31.. 57	3084268.9	30804764.4
7..33	11594805.8	184115615.1	32.. 58	2887919.6	27916844.8
8..34	10992563.6	173123051.5	33.. 59	2695137.4	25221707.4
9..35	10443834.1	162679217.4	34.. 60	2504938.3	22716769.1
10..36	9936398.8	152742818.6	35.. 61	2315429.1	20401340.0
11..37	9456436.1	143286380.5	36.. 62	2134947.4	18266392.6
12. 38	8993911.7	134292468.8	37.. 63	1964635.6	16301757.0
13..39	8549769.8	125742699.0	38.. 64	1805776.3	14495980.7
14..40	8120236.5	117622462.5	39.. 65	1656614.8	12839365.9
15..41	7700824.7	109921637.8	40.. 66	1516601.5	11322764.4
16..42	7292491.9	102629145.9	41.. 67	1384790.6	9937973.8
17..43	6898033.4	95731112.5	42.. 68	1260959.4	8677014.4
18..44	6523170.3	89208942.2	43.. 69	1145030.3	7531984.1
19..45	6165138.2	83043804.0	44.. 70	1007851.8	6524132.3
20..46	5827300.9	77216503.1	45.. 71	935801.6	5588330.7
21..47	5507637.6	71708865.5	46.. 72	838345.7	4749985.0
22..48	5207277.6	66501587.9	47.. 73	743629.4	4006356.6
23..49	4926377.9	61575190.0	48.. 74	652683.2	3353673.4
24..50	4661589.5	56913600.5	49.. 75	565755.3	2787918.1

TABLE XXVIII. 6..3

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Six Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
50 &76	487643.5	2300274.6	64 & 90	20183.71	42692.44
51..77	416967.2	1883307.4	65.. 91	13846.39	28846.048
52..78	354446.8	1528860.6	66.. 92	9163.208	19682.840
53..79	300554.6	1228306.11	67.. 93	6103.483	13579.357
54..80	251871.96	976434.15	68.. 94	4174.313	9405.044
55..81	210122.02	766312.13	69.. 95	2884.359	6520.685
56..82	172698.80	593613.33	70.. 96	2031.638	4489.047
57..83	140659.16	452954.17	71.. 97	1456.872	3032.175
58..84	112985.73	339968.44	72.. 98	1030.375	2001.800
59..85	89607.78	250360.66	73.. 99	728.913	1272.8865
60..86	69383.35	180977.31	74..100	531.2039	741.6826
61..87	52257.33	128719.98	75..101	363.1931	378.4895
62..88	38157.24	90562.74	76..102	226.7081	151.7814
63..89	27686.59	62876.15	77..103	117.8920	33.8694

Difference of Age Twenty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 &27	22883059.	272723927.6	30 & 57	3115746.6	31183708.6
1..28	18561311.3	254162616.3	31.. 58	2917697.4	28266011.2
2..29	16344666.6	237817949.7	32.. 59	2722719.1	25543292.1
3..30	14621633.3	223196316.4	33.. 60	2530371.5	23012920.6
4..31	13453840.5	209742475.9	34.. 61	2339179.3	20673741.3
5..32	12496664.5	197245811.4	35.. 62	2157073.3	18516668.0
6..33	11736993.6	185506817.8	36.. 63	1985587.7	16531080.3
7..34	11090110.7	174416707.1	37.. 64	1825593.3	14705487.0
8..35	10512998.6	163903708.5	38.. 65	1675322.6	13030164.4
9..36	9987157.5	153916551.0	39.. 66	1534830.6	11495333.8
10..37	9499081.0	144417470.0	40.. 67	1403037.0	10092296.8
11..38	9037476.0	135379994.0	41.. 68	1278572.1	8813724.7
12..39	8592733.4	126787260.6	42.. 69	1161727.3	7651997.4
13..40	8162536.0	118624724.6	43.. 70	1022765.9	6629231.5
14..41	7743607.1	110881117.5	44.. 71	949857.3	5679374.2
15..42	7337917.1	103543200.4	45.. 72	85094 .1	4828427.1
16..43	6944619.3	96598581.1	46.. 73	754812.0	4073615.1
17..44	6567580.5	90031000.6	47.. 74	662355.7	3411259.4
18..45	6208363.5	83822637.1	48.. 75	573750.5	2837508.9
19..46	5868446.1	77954191.0	49.. 76	494408.7	2343100.2
20..47	5546822.4	72407368.6	50.. 77	422638.2	1920462.0
21..48	5243698.2	67163670.4	51.. 78	359586.2	1560875.8
22..49	4961076.6	62202593.8	52.. 79	305193.7	1255682.05
23..50	4694655.9	57507937.9	53.. 80	256006.01	999676.04
24..51	4443516.1	53064421.8	54.. 81	213733.25	785942.79
25..52	4201873.4	48862548.4	55.. 82	175850.55	610092.24
26..53	3968825.5	44893722.9	56.. 83	143383.45	466708.79
27..54	3744694.3	41148828.6	57.. 84	115397.19	351311.60
28..55	3529489.8	37619338.8	58.. 85	91830.64	259480.96
29..56	3319683.6	34299455.2	59.. 86	71402.18	188078.78

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	F
60 &87	54068.00	134010.78	69 & 96	2136.563	4808.
61..88	39573.38	94437.40	70.. 97	1536.210	3272.
62..89	28762.54	65674.86	71.. 98	1094.805	2177.
63..90	20986.44	44688.42	72.. 99	782.204	1393.
64..91	14419.88	30268.536	73..100	576.2164	819.
65..92	9555.827	20712.709	74..101	399.1871	420.
66..93	6374.404	14338.305	75..102	250.6503	169.
67..94	4368.211	9970.094	76..103	131.4249	37.
68..95	3024.864	6945.230			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	F
0 &28	21937491.	259171394.3	38 & 66	1552163.2	116648
1..29	17777635.1	241393759.2	39.. 67	1419901.2	102449
2..30	15636745.3	225757013.9	40.. 68	1295418.9	89495
3..31	13984457.7	211772556.2	41.. 69	1177953.8	77716
4..32	12866214.2	198906342.0	42.. 70	1037680.0	67339
5..33	11951758.4	186954583.6	43.. 71	963913.2	57700
6..34	11228022.4	175726561.2	44.. 72	863728.3	49062
7..35	10606290.2	165120271.0	45.. 73	766157.6	41401
8..36	10053297.6	155066973.4	46.. 74	672317.0	34678
9..37	9547605.7	145519367.7	47.. 75	1455●●.●	28855
10..38	9078229.6	136441138.1	48.. 76	501395.7	23841
11..39	8634354.4	127806783.7	49.. 77	428501.6	19●5●
12..40	8203553.8	119603229.9	50.. 78	364476.8	15911
13..41	7783944.7	111819285.2	51.. 79	309619.0	12815
14..42	7378693.3	104440601.9	52.. ●●	259957.65	10216
15..43	6987877.8	97452724.3	53.. 81	217241.30	8043
16..44	6611934.6	90640789.7	54.. 82	178872.78	6254
17..45	6251588.9	●4580●00.●	55.. 83	146000.20	4●●●
18..46	5909591.2	78679609.6	56.. 84	117632.20	3618
19..47	5585987.1	73093622.5	57.. 85	93790.59	2680
20..48	5280985.9	67812636.6	58.. 86	73173.43	1948
21..49	4995775.2	62816861.4	59.. 87	55641.21	1392
22..50	4727722.5	58089138.9	60.. 88	40944.58	983
23..51	4475035.7	53614103.2	61.. 89	29830.01	684
24..52	4231891.9	49382211.3	62.. 90	21802.01	466
25..53	●●●●●●.0	45384143.3	63.. 91	14993.37	316
26..54	3772691.7	41611451.6	64.. 92	9951.612	217
27..55	3557121.5	38054330.1	65.. 93	6647.531	150
28..56	3349015.6	34705314.5	66.. 94	4562.109	105
29..57	3146672.1	31558642.4	67.. 95	3165.369	73
30..58	2947475.1	28611167.3	68.. 96	2240.640	51
31..59	2750793.6	25860373.7	69.. 97	1615.548	35
32..60	2556267.2	23304106.5	70.. 98	1154.425	23
33..61	2362929.5	20941177.0	71.. 99	831.115	15
34..62	2179199.2	18761977.8	72..100	618.3433	8
35..63	2006165.7	16755812.1	73..101	433.0128	4
36..64	1845062.4	14910749.7	74..102	275.4914	1
37..65	1693707.9	13217041.8	75..103	145.3047	

TABLE XXVIII. 6:7

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Twenty-Nine Years.

Age.	D.	N.	Ages.	D.	N.
0 &29	21011270.	246164273.9	38 & 67	1435935.8	10395020.7
1..30	17007648.9	229156625.0	39.. 68	1310989.4	9084031.3
2..31	14955333.7	214201291.3	40.. 69	1193474.9	7890556.4
3..32	13373655.7	200827635.6	41.. 70	1052173.9	6836382.5
4..33	12305194.4	188522441.2	42.. 71	977969.1	5860413.4
5..34	11431525.9	177090915.3	43.. 72	876509.6	4983903.8
6..35	10738185.2	166352730.1	44.. 73	777665.3	4206238.5
7..36	10142509.9	156210220.2	45.. 74	682422.7	3523815.8
8..37	9610835.0	146599385.2	46.. 75	591009.9	2932805.9
9..38	9124604.5	137474780.7	47.. 76	508826.2	2423979.7
10..39	8673290.3	128801490.4	48.. 77	434557.2	1989422.5
11..40	8243289.8	120558200.6	49.. 78	369533.3	1619889.2
12..41	7823060.0	112735140.6	50.. 79	313830.0	1306059.16
13..42	7417120.0	105318020.6	51.. 80	263726.91	1042332.25
14..43	7026699.1	98291321.5	52.. 81	220594.58	821737.67
15..44	6653120.6	91638200.9	53.. 82	181808.67	639929.00
16..45	6293508.9	85344392.0	54.. 83	148509.41	491419.59
17..46	5950736.3	79393655.7	55.. 84	119778.98	371640.61
18..47	5625151.9	73768503.8	56.. 85	95607.13	276033.48
19..48	5318273.7	68450230.1	57.. 86	74735.16	201298.32
20..49	5031299.9	63418930.2	58.. 87	57021.48	144276.84
21..50	4760789.0	58658141.2	59.. 88	42135.93	102140.91
22..51	4506555.4	54151585.8	60.. 89	30863.60	71277.31
23..52	4261910.3	49889675.5	61.. 90	22611.16	48666.15
24..53	4026630.6	45863044.9	62.. 91	15576.04	33090.114
25..54	3800489.2	42062555.7	63.. 92	10347.396	22742.718
26..55	3583525.1	38479030.6	64.. 93	6922.860	15819.858
27..56	3375234.4	35103796.2	65.. 94	4757.582	11062.276
28..57	3174284.2	31929512.0	66.. 95	3305.875	7756.401
29..58	2976730.4	28952781.6	67.. 96	2344.718	5411.683
30..59	2778867.9	26173913.7	68.. 97	1694.246	3717.437
31..60	2582625.2	23591288.5	69.. 98	1214.045	2503.392
32..61	2387111.6	21204176.9	70.. 99	876.376	1627.0158
33..62	2201325.1	19002851.8	71..100	637.0078	970.0080
34..63	2026743.7	16976108.1	72..101	464.6702	505.3378
35..64	1864184.0	15111924.1	73..102	298.8357	206.5021
36..65	1711770.7	13400153.4	74..103	159.7051	46.7970
37..66	1569196.9	11830956.5			

Difference of Age Thirty Years.

Ages.	D.	N	Ages.	D.	N.
0 &30	20101228.	233699193.1	8 & 38	9185032.2	138487882.2
1..31	16266496.7	217432696.4	9.. 39	8717596.5	129770285.7
2..32	14302126.4	203130570.0	10.. 40	8280462.1	121489823.6
3..33	12790509.2	190340060.8	11.. 41	7860953.0	113628870.6
4..34	11769577.5	178570483.3	12.. 42	7454392.0	106174478.6
5..35	10932810.7	167637672.6	13.. 43	7063302.2	99111176.4
6..36	10268637.4	157369035.2	14.. 44	6690082.3	92421094.1
7..37	9696120.8	147672914.4	15.. 45	6333013.4	86088080.7

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 8¼ per Cent.)

Difference of Age Thirty Years—continued.

Ages.	D.	N.	Ages.	D.	N.
16 & 46	5990921.7	80097156.0	45 & 75	599393.4	2979684.4
17..47	5664316.6	74432839.4	46.. 76	516478.5	2463205.9
18..48	5355561.3	69077278.1	47.. 77	440997.2	2022208.7
19..49	5066824.8	64010453.3	48.. 78	374755.5	1647453.2
20..50	4794642.7	59215910.6	49.. 79	318188.9	1329269.28
21..51	4537075.0	54677735.6	50.. 80	267313.78	1061955.50
22..52	4291928.8	50385806.8	51.. 81	223793.10	838162.40
23..53	4055193.0	46330613.8	52.. 82	184615.01	653547.39
24..54	3827640.1	42502973.7	53.. 83	150946.93	502600.46
25..55	3609928.7	38893045.0	54.. 84	121837.55	380762.91
26..56	3400287.9	35492757.1	55.. 85	97351.95	283410.96
27..57	3199135.1	32293622.0	56.. 86	76162.64	207228.32
28..58	3002851.2	29290770.8	57.. 87	56238.49	148989.63
29..59	2806449.6	26464321.2	58.. 88	43181.18	105808.85
30..60	2608983.1	23875338.1	59.. 89	31761.63	74047.02
31..61	2411725.4	21463612.7	60.. 90	23394.61	50652.41
32..62	2223853.2	19239759.5	61.. 91	16154.13	34498.284
33..63	2047321.7	17192437.8	62.. 92	10749.512	23748.772
34..64	1883305.7	15309132.1	63.. 93	7198.188	16550.584
35..65	1729510.9	13579621.2	64.. 94	4954.632	11593.952
36..66	1585931.8	11993689.4	65.. 95	3447.523	8148.429
37..67	1451894.1	10541995.3	66.. 96	2448.795	5699.634
38..68	1325794.2	9216201.1	67.. 97	1772.945	3926.689
39..69	1207820.1	8008381.0	68.. 98	1273.184	2653.505
40..70	1096037.6	6942343.4	69.. 99	921.636	1731.8685
41..71	991638.9	5950714.5	70..100	692.7869	1039.0816
42..72	869291.0	5061423.5	71..101	493.7256	
43..73	789173.1	4272250.4	72..102	320.6834	224.6725
44..74	692672.6	3579577.8	73..103	173.2379	51.4317

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 &31	19225265.	221757532.9	15 & 46	6026242.4	80789985.9
1..32	15556021.6	206201511.3	16.. 47	5702570.6	75087415.3
2..33	13678494.7	192523016.6	17.. 48	5392849.2	69694566.1
3..34	12233767.9	180289248.7	18.. 49	5102349.5	64592216.6
4..35	11256114.4	169033134.3	19.. 50	4828496.6	59763720.0
5..36	10454752·7	158578381.6	20.. 51	4570345.1	55193374.9
6..37	9816697.4	148761684.2	21.. 52	4321947.3	50871427.6
7..38	9266539.7	139495144.5	22.. 53	4083755.5	46787673.1
8..39	8775329.0	130719815.5	23.. 54	3854791.2	42932860.9
9..40	8322761.7	122397053.8	24.. 55	3635718.4	39297162.5
10..41	7896401.2	114500652.6	25.. 56	3425341.5	35871821.0
11..42	7490499.3	107010153.4	26.. 57	3222881.4	32648939.6
12..43	7098796.3	99911357.1	27.. 58	3026360.0	29622579.6
13..44	6724932.0	93186425.1	28.. 59	2831076.3	26791503.3
14..45	6368196.8	86818228.3	29.. 60	2634878.8	24156624.4

TABLE XXVIII. 630

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-One Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
30 &61	2436339.2	21720285.3	52 & 83	153276.90	513147.53
31..62	2246783.7	19473501.6	53.. 84	123837.30	389310.23
32..63	2068273.7	17405227.9	54.. 85	99025.08	290285.15
33..64	1902427.3	15502800.6	55.. 86	77572.97	212712.18
34..65	1747251.1	13755549.5	56.. 87	59366.47	153345.71
35..66	1602367.9	12153181.6	57.. 88	44102.80	109242.91
36..67	1467175.9	10686005.7	58.. 89	32549.53	76693.38
37..68	1340343.8	9345661.9	59.. 90	24075.32	52618.06
38..69	1221459.7	8124202.2	60.. 91	16713.85	35904.212
39..70	1078851.1	7045351.1	61.. 92	11148.465	24755.747
40..71	1004694.9	6040656.2	62.. 93	7477.921	17277.826
41..72	901712.3	5138943.9	63.. 94	5151.682	12126.144
42..73	800680.8	4338263.1	64.. 95	3590.314	8535.830
43..74	702922.9	3635340.2	65.. 96	2553.721	5982.109
44..75	608903.9	3026436.3	66.. 97	1951.642	4130.467
45..76	524241.8	2502194.5	67.. 98	1332.325	2798.142
46..77	447629.4	2054565.1	68.. 99	966.531	1831.6109
47..78	380399.3	1674255.8	69..100	728.5660	1103.0449
48..79	322680.4	1351575.38	70..101	520.6128	582.4321
49..80	271022.25	1080553.13	71..102	340.7355	241.6966
50..81	226836.85	853716.28	72..103	185.9034	55.7932
51..82	187291.85	666424.43			

Difference of Age Thirty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0&32	18385559.	210318471.7	22 & 54	3881942.1	43353039.7
1..33	14877714.9	195440756.8	23.. 55	3661507.9	39691531.8
2..34	13083101.4	182357655.4	24.. 56	3449812.3	36241719.5
3..35	11700053.8	170657601.6	25.. 57	3246627.9	32995091.6
4..36	10763919.3	159893682.3	26.. 58	3048824.0	29946267.6
5..37	9994621.3	149899061.0	27.. 59	2853240.3	27093027.3
6..38	9381774.1	140517286.9	28.. 60	2657999.8	24435027.5
7..39	8853200.6	131664086.3	29.. 61	2460521.2	21974506.3
8..40	8377879.3	123286207.0	30.. 62	2269714.1	19704792.2
9..41	7936738.9	115349468.1	31.. 63	2089600.0	17615192.2
10..42	7524276.9	107825191.2	32.. 64	1921896.6	15693295.6
11..43	7133181.1	100692010.1	33.. 65	1764991.3	13928304.3
12..44	6758725.6	93933284.5	34.. 66	1618804.0	12309500.3
13..45	6401369.7	87531914.8	35.. 67	1482381.2	10827119.1
14..46	6061732.6	81470182.2	36.. 68	1354638.1	9472481.0
15..47	5738092.2	75732090.0	37.. 69	1234864.5	8237616.5
16..48	5429269.8	70302820.2	38.. 70	1091034.4	7146582.1
17..49	5137874.3	65164945.9	39.. 71	1016771.1	6129811.0
18..50	4862350.4	60302595.5	40.. 72	913593.6	5216217.4
19..51	4602615.2	55699980.3	41.. 73	811864.5	4404352.9
20..52	4352680.5	51347299.8	42.. 74	713173.0	3691179.9
21..53	4112318.0	47234981.8	43.. 75	617914.3	3073265.6

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives—
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 &76	532115.9	2541149.7	58 & 90	24672.55	54496.97
45..77	454357.8	2056791.9	59.. 91	17200.17	37296.802
46..78	386028.8	1700763.1	60.. 92	11534.751	25762.051
47..79	327462.4	1373300.65	61.. 93	7755.453	18006.598
48..80	274852.31	1098448.34	62.. 94	5351.886	12654.712
49..81	229983.78	868464.56	63.. 95	3733.103	8921.609
50..82	189839.15	678625.41	64.. 96	2659.490	6262.119
51..83	155499.35	523126.06	65.. 97	1930.980	4331.139
52..84	125748.82	397377.24	66.. 98	1391.464	2939.675
53..85	100650.41	296726.83	67.. 99	1011.427	1928.2475
54..86	78906.18	217820.65	68..100	764.0565	1164.1910
55..87	60449.90	157370.75	69..101	547.4999	616.6911
56..88	44956.99	112413.76	70..102	359.2911	257.4000
57..89	33244.24	79169.52	71..103	197.5277	59.8723

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 &33	17583873.	199359065.2	30 & 63	2110926.3	17822987.3
1..34	14230122.3	185128942.9	31.. 64	1941713.5	15881273.8
2..35	12512334.1	172616608.8	32.. 65	1783054.2	14098219.6
3..36	11188446.7	161428162.1	33.. 66	1635240.1	12462979.5
4..37	10290180.9	151137981.2	34.. 67	1497586.5	10965393.0
5..38	9551815.3	141586165.9	35.. 68	1368677.1	9596715.9
6..39	8963295.1	132622870.8	36.. 69	1248033.7	8348682.2
7..40	8452224.0	124170646.8	37.. 70	1103007.6	7245674.6
8..41	7989300.1	116181346.7	38.. 71	1028253.3	6217421.3
9..42	7562713.5	108618633.2	39.. 72	924574.7	5292846.6
10..43	7165347.5	101453285.7	40.. 73	822561.9	4470284.7
11..44	6791463.2	94661822.5	41.. 74	723134.3	3747150.4
12..45	6433537.4	88228285.1	42.. 75	626924.9	3120225.5
13..46	6093309.1	82134976.0	43.. 76	539990.1	2580235.4
14..47	5769970.5	76365005.5	44.. 77	461182.3	2119053.1
15..48	5463088.9	70901916.6	45.. 78	391831.2	1727221.9
16..49	5172573.0	65729343.6	46.. 79	332387.2	1394834.68
17..50	4896204.1	60833139.5	47.. 80	278925.56	1115909.12
18..51	4634885.3	56198254.2	48.. 81	233233.89	882675.23
19..52	4383413.8	51814840.4	49.. 82	192472.82	690202.41
20..53	4141560.5	47673279.9	50.. 83	157614.26	532588.15
21..54	3909093.0	43764186.9	51.. 84	127572.12	405016.03
22..55	3687297.6	40076889.3	52.. 85	102204.02	302812.01
23..56	3474283.2	36602606.1	53.. 86	80201.28	222610.73
24..57	3269822.0	33332784.1	54.. 87	61488.81	161121.92
25..58	3071287.8	30261496.3	55.. 88	45777.46	115344.46
26..59	2874419.2	27387077.1	56.. 89	33838.12	81456.34
27..60	2678808.8	24708268.3	57.. 90	25199.15	56257.19
28..61	2482112.3	22226156.0	58.. 91	17626.86	38630.332
29..62	2292242.4	19933913.6	59.. 92	11870.376	26759.956

TABLE XXVIII. 641

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Three Years—*continued.*

Ages	D.	N.	Ages.	D.	N.
60 & 93	8024.174	18735.782	66 & 99	1056.322	2023.4648
61..94	5550.512	13185.270	67..100	799.5471	1223.9177
62..95	3878.179	9307.091	68..101	574.1702	649.7475
63..96	2765.262	6541.829	69..102	377.8468	271.9007
64..97	2010.958	4530.871	70..103	208.2846	63.6161
65..98	1451.084	3079.787			

Difference of Age Thirty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 34	16818488.	188857143.7	35 & 69	1260967.9	8457466.0
1..35	13609314.8	175247828.9	36.. 70	1114770.8	7342695.2
2..36	11965208.6	163282620.3	37.. 71	1039537.7	6303157.5
3..37	10696024.1	152586596.2	38.. 72	935015.7	5368141.8
4..38	9834280.3	142752315.9	39.. 73	832448.8	4535693.0
5..39	9125751.4	133626564.5	40.. 74	732662.5	3903030.5
6..40	8557332.1	125069232.4	41.. 75	635681.6	3167348.9
7..41	8060196.6	117009035.8	42.. 76	547864.2	2619484.7
8..42	7612797.9	109396237.9	43.. 77	468006.8	2151477.9
9..43	7201950.7	102194287.2	44.. 78	397716.6	1753761.3
10..44	6822088.6	95372199.6	45.. 79	337383.3	1416377.95
11..45	6464699.8	88907498.8	46.. 80	283120.38	1133257.57
12..46	6123928.7	82783570.1	47.. 81	236690.35	896567.22
13..47	5800027.2	76983542.9	48.. 82	195192.81	701374.41
14..48	5493439.4	71490103.5	49.. 83	159800.85	541573.56
15..49	5204793.1	66285310.4	50.. 84	129307.20	412266.36
16..50	4929270.7	61356039.7	51.. 85	103685.92	308580.44
17..51	4667155.4	56688884.3	52.. 86	81439.23	227141.21
18..52	4414146.9	52274737.4	53.. 87	62498.05	164643.16
19..53	4170803.1	48103934.3	54.. 88	46564.20	118078.96
20..54	3936890.4	44167043.9	55.. 89	34506.58	83572.38
21..55	3713087.1	40453956.8	56.. 90	25687.20	57885.18
22..56	3498754.2	36955202.6	57.. 91	18003.06	39882.115
23..57	3293016.2	33662186.4	58.. 92	12164.839	27717.276
24..58	3093229.3	30568957.1	59.. 93	8257.652	19459.624
25..59	2895598.0	27673359.1	60.. 94	5742.833	13716.791
26..60	2698692.9	24974666.2	61.. 95	4022.110	9694.681
27..61	2501544.3	22473121.9	62.. 96	2872.725	6821.956
28..62	2312356.7	20160765.2	63.. 97	2090.935	4731.021
29..63	2131878.4	18028886.8	64.. 98	1511.185	3219.836
30..64	1961530.5	16067356.3	65.. 99	1101.583	2118.2529
31..65	1801439.4	14265916.9	66..100	835.0377	1283.2152
32..66	1651975.1	12613941.8	67..101	600.8404	682.3748
33..67	1512791.8	11101150.0	68..102	396.2528	286.1220
34..68	1382716.1	9718433.9	69..103	219.0416	67.0804

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N
0 &35	16084759.	178793931.4	35 & 70	1126323.9	7437
1..36	13014221.4	165779710.0	36.. 71	1050623.8	6387
2..37	11438599.3	154341110.7	37.. 72	945276.8	5441
3..38	10222142.7	144118966.0	38.. 73	841849.5	4599
4..39	9395616.9	134723351.1	39.. 74	741468.9	3858
5..40	8712430.4	126010920.7	40.. 75	644057.4	3214
6..41	8160429.5	117850491.2	41.. 76	555516.6	2658
7..42	7680353.2	110170138.0	42.. 77	474831.3	2184
8..43	7249645.7	102920492.3	43.. 78	403601.9	1780
9..44	6856938.3	96063554.0	44.. 79	342450.8	1438
10..45	6493851.8	89569702.2	45.. 80	287376.00	1150
11..46	6153591.5	83416110.7	46.. 81	240249.99	910
12..47	5829173.0	77586937.7	47.. 82	198085.53	712
13..48	5522055.5	72064882.2	48.. 83	162059.15	550
14..49	5233708.6	66831173.6	49.. 84	131101.08	419
15..50	4959975.3	61871198.3	50.. 85	105096.12	314
16..51	4698675.0	57172523.3	51.. 86	82620.07	231
17..52	4444880.2	52727643.1	52.. 87	63462.75	167
18..53	4200045.5	48527597.6	53.. 88	47328.47	120
19..54	3964687.9	44562909.7	54.. 89	35099.62	85
20..55	3739490.7	40823419.0	55.. 90	26155.99	59
21..56	3523225.1	37300193.9	56.. 91	18351.75	41
22..57	3316210.3	33983983.6	57.. 92	12424.474	28
23..58	3115170.8	30868812.8	58.. 93	8462.496	20
24..59	2916284.4	27952528.4	59.. 94	5909.932	14
25..60	2718577.1	25233951.3	60.. 95	4161.474	10
26..61	2520112.6	22713838.7	61.. 96	2979.341	7
27..62	2330459.6	20383379.1	62.. 97	2172.193	4
28..63	2150585.6	18232793.5	63.. 98	1571.287	3
29..64	1980999.8	16251793.7	64.. 99	1147.208	2
30..65	1819824.8	14431968.9	65..100	870.8167	1
31..66	1669008.8	12762960.1	66..101	627.5107	
32..67	1528273.7	11234686.4	67..102	414.6588	
33..68	1396755.1	9837931.3	68..103	229.7117	
34..69	1273902.2	8564029.1			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N
0 &36	15381422.	169151123.5	10 & 46	6181340.5	84032
1..37	12441443.3	156709680.2	11.. 47	5857408.0	78175
2..38	10931818.6	145777861.6	12.. 48	5549804.6	72625
3..39	9766178.5	136011683.1	13.. 49	5260971.8	67364
4..40	8970073.3	127041609.8	14.. 50	4987530.7	62377
5..41	8308334.3	118733275.5	15.. 51	4727943.2	57649
6..42	7775862.6	110957412.9	16.. 52	4474898.6	53174
7..43	7313978.5	103643434.4	17.. 53	4229288.1	48944
8..44	6902348.5	96741085.9	18.. 54	3992485.3	44952
9..45	6527024.7	90214061.2	19.. 55	3765894.4	41186

TABLE XXVIII. 643

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Six Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
20 & 56	3548278.6	37638217.4	44 & 80	291692.41	1168164.75
21..57	3339404.4	34298813.0	45.. 81	243861.22	924303.53
22..58	3137112.4	31161700.6	46.. 82	201064.58	723238.95
23..59	2936970.8	28224729.8	47.. 83	164460.82	558778.13
24..60	2737998.8	25486731.0	48.. 84	132953.80	425824.33
25..61	2538681.0	22948050.0	49.. 85	106554.14	319270.19
26..62	2347758.2	20600291.8	50.. 86	83743.77	235526.42
27..63	2167422.2	18432869.6	51.. 87	64382.93	171143.49
28..64	1998383.1	16434486.5	52.. 88	48059.02	123084.47
29..65	1837887.4	14596599.1	53.. 89	35675.71	87408.76
30..66	1686042.5	12910556.6	54.. 90	26605.50	60803.26
31..67	1544031.9	11366524.7	55.. 91	18686.66	42116.598
32..68	1411049.4	9955475.3	56.. 92	12665.112	29451.486
33..69	1286836.4	8668638.9	57.. 93	8643.111	20808.375
34..70	1137877.1	7530761.8	58.. 94	6056.538	14751.837
35..71	1061512.2	6469249.6	59.. 95	4282.560	10469.277
36..72	955357.8	5513891.8	60.. 96	3082.572	7386.705
37..73	851088.2	4662803.6	61.. 97	2252.811	5133.894
38..74	749842.2	3912961.4	62.. 98	1632.350	3501.544
39..75	651798.8	3261162.6	63.. 99	1192.834	2308.7100
40..76	562836.2	2698326.4	64..100	906.8843	1401.8257
41..77	481463.6	2216862.8	65..101	654.3979	747.4278
42..78	409487.3	1807375.5	66..102	433.0648	314.3630
43..79	347518.3	1459857.16	67..103	240.3818	73.9812

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	14704460.	159913404.5	21 & 58	3159053.9	31448220.1
1..38	11890232.3	148023172.2	22.. 59	2957657.2	28490562.9
2..39	10444198.9	137578973.3	23.. 60	2757420.6	25733142.3
3..40	9323851.6	128255121.7	24.. 61	2556817.5	23176324.8
4..41	8554027.2	119701094.5	25.. 62	2365056.6	20811268.2
5..42	7916797.1	111784297.4	26.. 63	2183510.5	18627757.7
6..43	7404931.9	104379365.5	27.. 64	2014028.1	16613729.6
7..44	6963599.5	97415766.0	28.. 65	1854015.1	14759714.5
8..45	6570250.0	90845516.0	29.. 66	1702777.4	13056937.1
9..46	6212917.0	84632599.0	30.. 67	1559790.1	11497147.0
10..47	5883821.5	78748777.5	31.. 68	1425599.0	10071548.0
11..48	5576686.5	73172091.0	32.. 69	1300005.8	8771542.2
12..49	5287408.8	67884682.2	33.. 70	1149430.1	7622112.1
13..50	5013511.5	62871170.7	34.. 71	1072400.6	6549711.5
14..51	4754209.6	58116961.1	35.. 72	965258.8	5584452.7
15..52	4502772.9	53614188.2	36.. 73	860164.7	4724288.0
16..53	4257850.6	49356337.6	37.. 74	758071.2	3966216.8
17..54	4020282.7	45336054.9	38.. 75	659159.5	3307057.3
18..55	3792298.0	41543756.9	39.. 76	569601.4	2737455.9
19..56	3573332.1	37970424.8	40.. 77	487807.6	2249648.3
20..57	3363150.8	34607274.0	41.. 78	415206.9	1834441.4

Preparatory Table for finding the Values of Annuities, &c. on Two Joint (Carlisle 3½ per Cent.)

Difference of Age Thirty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N
42 &79	352585.9	1481855.48	55 & 92	12896.250	3022
43..80	296008.83	1185846.65	56.. 93	8810.512	2141
44..81	247524.04	938322.61	57.. 94	6185.803	1522
45..82	204086.80	734235.81	58.. 95	4388.796	1083
46..83	166934.18	567301.63	59.. 96	3172.265	766
47..84	134924.13	432377.50	60.. 97	2330.869	533
48..85	108059.96	324317.54	61.. 98	1692.932	364
49..86	84905.54	239412.00	62.. 99	1239.189	240
50..87	65258.58	174153.42	63..100	942.9519	146
51..88	48755.85	125397.57	64..101	681.5020	78
52..89	36226.39	89171.18	65..102	451.6204	32
53..90	27042.20	62128.98	66..103	251.0520	7
54..91	19007.82	43121.160			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	?
0 &38	14052987.	151065716.7	33 & 71	1083288.8	66286
1..39	11359362.1	139705854.6	34.. 72	975159.9	56535
2..40	9971163.3	129734691.3	35.. 73	869079.2	47844
3..41	8891396.6	120843294.7	36.. 74	766155.6	40182
4..42	8150911.7	112692383.0	37.. 75	666393.3	33518
5..43	7539143.4	105153239.6	38.. 76	576033.8	27758
6..44	7050195.6	98103044.0	39.. 77	493670.9	22821
7..45	6628554.0	91474490.0	40.. 78	420677.8	18615
8..46	6254062.2	85220427.8	41.. 79	357510.7	15040
9..47	5913878.1	79306349.7	42.. 80	300325.24	12036
10..48	5601834.0	73704715.7	43.. 81	251186.86	9524
11..49	5313019.7	68391696.0	44.. 82	207152.22	7453
12..50	5038705.1	63352990.9	45.. 83	169443.39	5758
13..51	4778974.9	58574016.0	46.. 84	136953.29	4389
14..52	4527788.4	54046227.6	47.. 85	109661.37	3292
15..53	4284373.0	49761854.6	48.. 86	86105.43	2431
16..54	4047433.7	45714420.9	49.. 87	66163.93	1770
17..55	3818701.7	41895719.2	50.. 88	49418.96	1275
18..56	3598385.6	38297333.6	51.. 89	36751.67	908
19..57	3386897.2	34910436.4	52.. 90	27459.62	633
20..58	3181517.8	31728918.6	53.. 91	19319.81	440
21..59	2978343.5	28750575.1	54.. 92	13117.890	309
22..60	2776842.2	25973732.9	55.. 93	8971.304	219
23..61	2574954.1	23398778.8	56.. 94	6305.610	156
24..62	2381952.8	21016826.0	57.. 95	4482.465	111
25..63	2199598.7	18817227.3	58.. 96	3250.958	79
26..64	2028977.7	16788249.6	59.. 97	2398.690	55
27..65	1868529.7	14919719.9	60.. 98	1751.590	37
28..66	1717719.3	13202000.6	61.. 99	1285.180	25
29..67	1575271.9	11626728.7	62..100	979.5967	15
30..68	1440148.5	10186580.2	63..101	708.6058	8
31..69	1313410.3	8873169.9	64..102	470.3257	3
32..70	1161193.2	7711976.7	65..103	261.8089	

TABLE XXVIII. 645

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Nine Years.

Ages	D.	N.	Ages.	D.	N.
0&39	13426146.	142593158.1	33 & 72	985060.9	5721314.3
1..40	10845354.4	131747803.7	34.. 73	877993.6	4343320.7
2..41	9508685.0	122239118.7	35.. 74	774095.8	4069224.9
3..42	8472382.5	113766736.2	36.. 75	673500.1	3395724.8
4..43	7762090.0	106004646.2	37.. 76	582355.3	2813369.5
5..44	7177977.9	98826668.3	38.. 77	499245.8	2314123.7
6..45	6710983.6	92115684.7	39.. 78	425734.2	1888389.5
7..46	6309560.2	85806121.5	40.. 79	362221.4	1526168.11
8..47	5953042.8	79853081.7	41.. 80	304520.08	1221648.03
9..48	5630450.2	74222631.5	42.. 81	254849.68	966798.35
10..49	5336978.2	68885653.3	43.. 82	210217.61	756580.74
11..50	5063111.3	63822542.0	44.. 83	171988.43	584592.31
12..51	4802989.9	59019552.1	45.. 84	139011.86	445580.45
13..52	4551374.3	54468177.8	46.. 85	111310.60	334269.85
14..53	4308175.1	50160002.7	47.. 86	87381.49	246888.36
15..54	4072645.3	46087357.4	48.. 87	67098.95	179789.41
16..55	3844491.3	42242866.1	49.. 88	50104.56	129684.85
17..56	3623439.2	38619426.9	50.. 89	37251.51	92433.34
18..57	3410643.6	35208783.3	51.. 90	27857.76	64575.58
19..58	3203981.8	32004801.5	52.. 91	19618.02	44957.556
20..59	2999522.4	29005279.1	53.. 92	13333.197	31624.359
21..60	2796263.8	26209015.3	54.. 93	9125.488	22498.871
22..61	2593090.6	23615924.7	55.. 94	6420.687	16078.184
23..62	2398848.9	21217075.8	56.. 95	4569.282	11508.902
24..63	2215312.7	19001763.1	57.. 96	3320.344	8188.558
25..64	2043927.3	16957835.8	58.. 97	2458.194	5730.364
26..65	1882309.4	15075436.4	59.. 98	1802.556	3927.808
27..66	1731167.0	13344269.4	60.. 99	1329.710	2598.0983
28..67	1589095.0	11755174.4	61..100	1015.9528	1582.1455
29..68	1454442.7	10300731.7	62..101	736.1435	846.0020
30..69	1326814.9	8973916.8	63..102	489.0310	356.9710
31..70	1173166.5	7800750.3	64..103	272.6525	84.3185
32..71	1094375.1	6706375.2			

Difference of Age Forty Years.

Ages.	D.	N.	Ages.	D.	N.
0 &40	12818053.	134485699.8	12 & 52	4574245.5	54879387.5
1..41	10342329.8	124143370.0	13.. 53	4330616.9	50548770.6
2..42	9060580.5	115082789.5	14.. 54	4095271.2	46453499.4
3..43	8058225.5	107014564.0	15.. 55	3868438.8	42585060.6
4..44	7390244.0	99624320.0	16.. 56	3647910.0	38937150.6
5..45	6832617.7	92791702.3	17.. 57	3434390.0	35502760.6
6..46	6338023.1	86403679.2	18.. 58	3226445.6	32276315.0
7..47	6005869.7	80397809.5	19.. 59	3020701.3	29255613.7
8..48	5667737.9	74730071.6	20.. 60	2816148.0	26439465.7
9..49	5364241.4	69365830.2	21.. 61	2611227.0	23828238.7
10..50	5085942.8	64279887.4	22.. 62	2415745.0	21412493.7
11..51	4826254.4	59453633.0	23.. 63	2231026.8	19181466.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Seven Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
42 &79	352585.9	1481855.48	55 & 92	12896.250	30224.910
43..80	296008.83	1185846.65	56.. 93	8810.512	21414.398
44..81	247524.04	938322.61	57.. 94	6185.803	15228.595
45..82	204086.80	734235.81	58.. 95	4388.796	10839.799
46..83	166934.18	567301.63	59.. 96	3172.265	7667.534
47..84	134924.13	432377.50	60.. 97	2330.869	5336.665
48..85	108059.96	324317.54	61.. 98	1692.932	3643.733
49..86	84905.54	239412.00	62.. 99	1239.189	2404.5440
50..87	65258.58	174153.42	63..100	942.9519	1461.5921
51..88	48755.85	125397.57	64..101	681.5020	780.0901
52..89	36226.39	89171.18	65..102	451.6204	328.4697
53..90	27042.20	62128.98	66..103	251.0520	77.4177
54..91	19007.82	43121.160			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 &38	14052987.	151065716.7	33 & 71	1083288.8	6628687.9
1..39	11359362.1	139705854.6	34.. 72	975159.9	5653528.0
2..40	9971163.3	129734691.3	35.. 73	869079.2	4784448.8
3..41	8891396.6	120843294.7	36.. 74	766155.6	4018293.2
4..42	8150911.7	112692383.0	37.. 75	666393.3	3351899.9
5..43	7539143.4	105153239.6	38.. 76	576033.8	2775866.1
6..44	7050195.6	98103044.0	39.. 77	493670.9	2282195.2
7..45	6628554.0	91474490.0	40.. 78	420677.8	1861517.4
8..46	6254062.2	85220427.8	41.. 79	357510.7	1504006.67
9..47	5913878.1	79306349.7	42.. 80	300325.24	1203681.43
10..48	5601834.0	73704715.7	43.. 81	251186.86	952494.57
11..49	5313019.7	68391696.0	44.. 82	207152.22	745342.35
12..50	5038705.1	63352990.9	45.. 83	169443.39	575898.96
13..51	4778974.9	58574016.0	46.. 84	136953.29	438945.67
14..52	4527783.4	54046227.6	47.. 85	109661.37	329284.30
15..53	4284373.0	49761854.6	48.. 86	86105.43	243178.87
16..54	4047433.7	45714420.9	49.. 87	66163.93	177014.94
17..55	3818701.7	41895719.2	50.. 88	49418.96	127595.93
18..56	3598385.6	38297333.6	51.. 89	36751.67	90844·31
19..57	3386897.2	34910436.4	52.. 90	27459.62	63384.69
20..58	3191517.8	31728918.6	53.. 91	19319.81	44064.878
21..59	2978343.5	28750575.1	54.. 92	13117.890	30946.988
22..60	2776842.2	25973732.9	55.. 93	8971.304	21975.684
23..61	2574954.1	23398778.8	56.. 94	6305.610	15670.074
24..62	2381952.8	21016826.0	57.. 95	4482.465	11187.609
25..63	2199598.7	18817227.3	58.. 96	3250.958	7936.651
26..64	2028977.7	16788249.6	59.. 97	2398.690	5537.961
27..65	1868529.7	14919719.9	60.. 98	1751.590	3786.371
28..66	1717719.3	13202000.6	61.. 99	1285.180	2501.1911
29..67	1575271.9	11626728.7	62..100	979.5967	1521.5944
30..68	1440148.5	10186580.2	63..101	708.6058	812.9886
31..69	1313410.3	8873169.9	64..102	470.3257	342.6629
32..70	1161193.2	7711976.7	65..103	261.8089	80.8540

TABLE XXVIII. 645

Prepatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Thirty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 39	13426146.	142593158.1	33 & 72	985060.9	5721314.3
1..40	10845354.4	131747803.7	34.. 73	877993.6	4843320.7
2..41	9508685.0	122239118.7	35.. 74	774095.8	4069224.9
3..42	8472382.5	113766736.2	36.. 75	673500.1	3395724.8
4..43	7762090.0	106004646.2	37.. 76	582355.3	2813369.5
5..44	7177977.9	98826668.3	38.. 77	499245.8	2314123.7
6..45	6710983.6	92115684.7	39.. 78	425734.2	1888389.5
7..46	6309560.2	85806121.5	40.. 79	362221.4	1526168.11
8..47	5953042.8	79853081.7	41.. 80	304520.08	1221648.03
9..48	5630450.2	74222631.5	42.. 81	254849.68	966798.35
10..49	5336978.2	68885653.3	43.. 82	210217.61	756580.74
11..50	5063111.3	63822542.0	44.. 83	171988.43	584592.31
12..51	4802989.9	59019552.1	45.. 84	139011.86	445580.45
13..52	4551374.3	54468177.8	46.. 85	111310.60	334269.85
14..53	4308175.1	50160002.7	47.. 86	87381.49	246888.36
15..54	4072645.3	46087357.4	48.. 87	67098.95	179789.41
16..55	3844491.3	42242866.1	49.. 88	50104.56	129684.85
17..56	3623439.2	38619426.9	50.. 89	37251.51	92433.34
18..57	3410643.6	35208783.3	51.. 90	27857.76	64575.58
19..58	3203981.8	32004801.5	52.. 91	19618.02	44957.556
20..59	2999522.4	29005279.1	53.. 92	13333.197	31624.359
21..60	2796263.8	26209015.3	54.. 93	9125.488	22498.871
22..61	2593090.6	23615924.7	55.. 94	6420.687	16078.184
23..62	2398848.9	21217075.8	56.. 95	4569.282	11508.902
24..63	2215312.7	19001763.1	57.. 96	3320.344	8188.558
25..64	2043927.3	16957835.8	58.. 97	2458.194	5730.364
26..65	1882399.4	15075436.4	59.. 98	1802.556	3927.808
27..66	1731167.0	13344269.4	60.. 99	1329.710	2598.0983
28..67	1589095.0	11755174.4	61..100	1015.9528	1582.1455
29..68	1454442.7	10300731.7	62..101	736.1435	846.0020
30..69	1326814.9	8973916.8	63..102	489.0310	356.9710
31..70	1173166.5	7800750.3	64..103	272.6525	84.3185
32..71	1094375.1	6706375.2			

Difference of Age Forty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 40	12818053.	134485699.8	12 & 52	4574245.5	54879387.5
1..41	10342329.8	124143370.0	13.. 53	4330616.9	50548770.6
2..42	9060580.5	115082789.5	14.. 54	4095271.2	46453499.4
3..43	8068225.5	107014564.0	15.. 55	3868438.8	42585060.6
4..44	7390244.0	99624320.0	16.. 56	3647910.0	38937150.6
5..45	6832617.7	92791702.3	17.. 57	3434390.0	35502760.6
6..46	6388023.1	86403679.2	18.. 58	3226445.6	32276315.0
7..47	6005869.7	80397809.5	19.. 59	3020701.3	29255613.7
8..48	5667737.9	74730071.6	20.. 60	2816148.0	26439465.7
9..49	5364241.4	69365830.2	21.. 61	2611227.0	23828238.7
10..50	5085942.8	64279887.4	22.. 62	2415745.0	21412493.7
11..51	4826254.4	59453633.0	23.. 63	2231026.8	19181466.9

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Forty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
24 & 64	2058529.3	17122937.6	44 & 84	141099.82	452295.68
25..65	1896268.9	15226668.7	45.. 85	112983.72	339311.96
26..66	1744017.0	13482651.7	46.. 86	88695.64	250616.32
27..67	1601535.7	11881116.0	47.. 87	68093.34	182522.98
28..68	1467205.4	10413910.6	48.. 88	50812.63	131710.35
29..69	1339884.1	9073926.5	49.. 89	37768.31	93942.04
30..70	1185139.7	7888786.8	50.. 90	28236.65	65705.39
31..71	1105659.3	6783127.5	51.. 91	19902.47	45802.922
32..72	995141.9	5787985.6	52.. 92	13539.004	32263.918
33..73	886908.1	4901077.5	53.. 93	9275.267	22988.651
34..74	782036.0	4119041.5	54.. 94	6531.035	16457.616
35..75	680479.9	3438561.6	55.. 95	4652.671	11804.945
36..76	588565.9	2849995.7	56.. 96	3384.653	8420.292
37..77	504724.6	2345271.1	57.. 97	2510.658	5909.634
38..78	430542.0	1914729.1	58.. 98	1847.272	4062.362
39..79	366575.2	1548153.87	59.. 99	1368.401	2693.961?
40..80	308532.52	1239621.35	60..100	1051.1547	1642.806?
41..81	258409.33	981212.02	61..101	763.4642	879.342?
42..82	213283.02	767929.00	62..102	508.0356	371.306?
43..83	174533.50	593395.50	63..103	283.4960	87.810?

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	12223531.	126738102.5	23 & 64	2073131.2	17283649.7
1..42	9854939.1	116883163.4	24.. 65	1909816.1	15373833.6
2..43	8628365.0	108254798.4	25.. 66	1756867.0	13616966.6
3..44	7681714.2	100573084.2	26.. 67	1613423.5	12003543.1
4..45	7034671.0	93538413.2	27.. 68	1478692.0	10524851.1
5..46	6503803.6	87034609.6	28.. 69	1351742.6	9173108.5
6..47	6080556.1	80954053.5	29.. 70	1196902.9	7976205.6
7..48	5718033.0	75236020.5	30.. 71	1116943.7	6859261.9
8..49	5399766.2	69836254.3	31.. 72	1005403.0	5853858.9
9..50	5111923.8	64724330.5	32.. 73	895984.6	4957874.3
10..51	4848018.0	59876312.5	33.. 74	789976.2	4167898.1
11..52	4596402.0	55279910.5	34.. 75	687459.9	3480438.2
12..53	4352378.9	50927531.6	35.. 76	594665.6	2885772.6
13..54	4116604.0	46810927.6	36.. 77	510107.3	2375665.3
14..55	3889930.1	42920997.5	37.. 78	435266.8	1940398.5
15..56	3670633.0	39250364.5	38.. 79	370714.9	1569683.5?
16..57	3457584.1	35792780.4	39.. 80	312241.00	1257442.5?
17..58	3248909.5	32543870.9	40.. 81	261814.21	995628.3?
18..59	3041880.2	29501990.7	41.. 82	216262.07	779366.3?
19..60	2836032.2	26665958.5	42.. 83	177078.56	602287.74
20..61	2629795.5	24036163.0	43.. 84	143187.79	459099.95
21..62	2432641.2	21603521.8	44.. 85	114680.75	344419.20
22..63	2246740.9	19356780.9	45.. 86	90028.83	254390.37

TABLE XXVIII. 661

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 3½ per Cent.)

Difference of Age Forty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
32 & 79	394553.7	1688032.60	45 & 92	14966.997	36066.102
33.. 80	332667.97	1355364.63	46.. 93	10257.638	25808.464
34.. 81	279457.64	1075906.99	47.. 94	7232.534	18575.930
35.. 82	231502.74	844404.25	48.. 95	5164.430	13411.500
36.. 83	190234.00	654170.25	49.. 96	3772.195	9639.305
37.. 84	154421.68	499748.57	50.. 97	2813.294	6826.011
38.. 85	124145.86	375602.71	51.. 98	2085.763	4740.258
39.. 86	97818.51	277784.20	52.. 99	1560.758	3179.5002
40.. 87	75321.21	202462.99	53..100	1215.0461	1964.4541
41.. 88	56297.39	146165.60	54..101	898.3336	1066.1205
42.. 89	41851.83	104313.77	55..102	609.4931	456.6274
43.. 90	31267.75	73046.02	56..103	346.9966	109.6308
44.. 91	22012.92	51033.099			

Difference of Age Forty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 48	8671570.	81609888.6	28 & 76	637474.4	3120497.9
1.. 49	6990119.8	74619768.8	29.. 77	547690.2	2572807.7
2.. 50	6124388.5	68495380.3	30.. 78	467677.7	2105130.0
3.. 51	5458898.3	63036482.0	31.. 79	398622.0	1706508.01
4.. 52	5001651.6	58034830.4	32.. 80	336072.47	1370435.54
5.. 53	4622362.3	53412468.1	33.. 81	282295.04	1088140.50
6.. 54	4315711.1	49096757.0	34.. 82	233877.35	854263.15
7.. 55	4048965.9	45047791.1	35.. 83	192205.52	662057.63
8.. 56	3808136.1	41239655.0	36.. 84	156068.54	505989.09
9.. 57	3585704.1	37653950.9	37.. 85	125508.26	380480.83
10.. 58	3374812.0	34279138.9	38.. 86	98923.16	281557.67
11.. 59	3167476.0	31111662.9	39.. 87	76226.55	205331.12
12.. 60	2959498.8	28152164.1	40.. 88	57039.19	148291.93
13.. 61	2749842.0	25402322.1	41.. 89	42436.40	105855.53
14.. 62	2548500.4	22853821.7	42.. 90	31723.69	74131.84
15.. 63	2357113.7	20496708.0	43.. 91	22338.67	51793.166
16.. 64	2176735.7	18319972.3	44.. 92	15191.802	36601.364
17.. 65	2005935.8	16314036.5	45.. 93	10411.823	26189.541
18.. 66	1845621.8	14468414.7	46.. 94	7341.306	18848.235
19.. 67	1695532.3	12772882.4	47.. 95	5240.967	13607.268
20.. 68	1554502.7	11218379.7	48.. 96	3825.504	9781.764
21.. 69	1422057.7	9796322.0	49.. 97	2852.323	6929.441
22.. 70	1261390.4	8534931.6	50.. 98	2114.122	4815.319
23.. 71	1180491.9	7354439.7	51.. 99	1583.388	3231.9305
24.. 72	1065889.2	6288550.5	52..100	1233.8012	1998.1293
25.. 73	952875.1	5335675.4	53..101	913.0780	1085.0513
26.. 74	842525.8	4493149.6	54..102	619.9680	465.0833
27.. 75	735177.3	3757972.3	55..103	353.3292	111.7541

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 43	11091869.	112283618.9	31 & 74	806289.6	4262795.8
1 .. 44	8935246.7	103348372.2	32 .. 75	701546.7	3561249.1
2 .. 45	7819763.7	95528608.5	33 .. 76	606865.1	2954384.0
3 .. 46	6960227.8	88568380.7	34 .. 77	520680.5	2433703.5
4 .. 47	6373836.4	82194544.3	35 .. 78	444467.9	1989235.6
5 .. 48	5694065.9	76300478.4	36 .. 79	378780.1	1610455.49
6 .. 49	5515428.3	70785050.1	37 .. 80	319232.37	1291223.12
7 .. 50	5191440.8	65593609.3	38 .. 81	267953.30	1023669.82
8 .. 51	4905053.5	60688555.8	39 .. 82	221745.26	802124.56
9 .. 52	4640715.0	56047840.8	40 .. 83	181917.76	620206.80
10 .. 53	4393182.5	51654658.3	41 .. 84	147304.93	472901.87
11 .. 54	4157330.5	47497327.8	42 .. 85	118074.80	354827.07
12 .. 55	3929842.6	43567485.2	43 .. 86	92733.32	262093.75
13 .. 56	3710252.5	39857232.7	44 .. 87	71210.07	190883.68
14 .. 57	3498450.1	36358782.6	45 .. 88	53127.91	137755.77
15 .. 58	3291225.3	33067557.3	46 .. 89	39454.23	98301.54
16 .. 59	3083745.4	29983811.9	47 .. 90	29463.21	68838.33
17 .. 60	2875800.4	27108011.5	48 .. 91	20742.07	46096.256
18 .. 61	2666932.1	24441079.4	49 .. 92	14115.267	33980.989
19 .. 62	2467238.1	21973841.3	50 .. 93	9684.954	24296.035
20 .. 63	2278543.3	19695298.0	51 .. 94	6838.434	17457.601
21 .. 64	2102335.2	17392962.8	52 .. 95	4884.562	12573.039
22 .. 65	1936910.2	15656052.6	53 .. 96	3563.194	9009.845
23 .. 66	1781969.5	13874083.1	54 .. 97	2650.779	
24 .. 67	1636922.7	12237160.4	55 .. 98	1958.339	4400.727
25 .. 68	1500643.9	10736516.5	56 .. 99	1460.017	2940.7099
26 .. 69	1372437.4	9364079.1	57 .. 100	1132.2349	1808.4750
27 .. 70	1216858.4	8147220.7	58 .. 101	833.0673	975.4077
28 .. 71	1137928.4	7009292.3	59 .. 102	561.0090	414.3987
29 .. 72	1025745.0	5983547.3	60 .. 103	316.0271	98.3716
30 .. 73	914461.9	5069085.4			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	10560509.	105553041.3	14 & 58	3309509.9	33323593.7
1 .. 45	8505337.5	97047703.8	15 .. 59	3102954.2	30220639.5
2 .. 46	7443444.0	89604259.8	16 .. 60	2895222.1	27325417.4
3 .. 47	6625219.5	82979040.3	17 .. 61	2685500.5	24639916.9
4 .. 48	6068364.4	76910675.9	18 .. 62	2484536.4	22155380.5
5 .. 49	5615393.4	71295282.5	19 .. 63	2294631.5	19860749.0
6 .. 50	5255999.2	66039283.3	20 .. 64	2117284.8	17743464.2
7 .. 51	4948580.6	61090702.7	21 .. 65	1950457.3	15793006.9
8 .. 52	4671448.3	56419254.4	22 .. 66	1794520.6	13998486.3
9 .. 53	4415624.4	52003630.0	23 .. 67	1648534.0	12349952.3
10 .. 54	4176077.6	47827552.4	24 .. 68	1511364.7	10838587.6
11 .. 55	3948877.7	43878674.7	25 .. 69	1382549.6	9456038.0
12 .. 56	3728897.1	40149777.6	26 .. 70	1225890.7	8230117.4
13 .. 57	3516674.0	36633103.6	27 .. 71	1146837.9	7083310.8

TABLE XXVIII. 649

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Forty-Four Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
28 & 72	1034745.9	6048564.4	44 & 88	53925.90	139822.02
29.. 73	923538.4	5125026.0	45.. 89	40047.28	99774.74
30.. 74	814518.6	4310507.4	46.. 90	29906.32	69868.42
31.. 75	708780.4	3601727.0	47.. 91	21049.45	48818.965
32.. 76	613075.7	2988651.3	48.. 92	14314.743	34504.222
33.. 77	525967.1	2462684.2	49.. 93	9819.315	24684.907
34.. 78	449026.9	2013657.3	50.. 94	6931.442	17753.465
35.. 79	382705.6	1630951.68	51.. 95	4955.387	12798.078
36.. 80	322636.87	1308314.81	52.. 96	3618.194	9179.884
37.. 81	270893.87	1037420.94	53.. 97	2694.287	6485.597
38.. 82	224249.39	813171.55	54.. 98	1991.995	4493.602
39.. 83	184104.36	629067.19	55.. 99	1486.662	3006.9396
40.. 84	149245.86	479821.33	56..100	1154.1640	1852.7756
41.. 85	119724.02	360097.31	57..101	850.8474	1001.9282
42.. 86	94085.56	266011.75	58..102	574.9257	427.0025
43.. 87	72263.83	193747.92	59..103	325.2225	101.7800

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 45	10052402.	99134283.8	30 & 75	716014.2	3641320.8
1.. 46	8096025.1	91038258.7	31.. 76	619397.1	3021923.7
2.. 47	7085177.6	83953081.1	32.. 77	531349.8	2490573.9
3.. 48	6307699.7	77645381.4	33.. 78	453585.9	2036988.0
4.. 49	5781451.0	71863930.4	34.. 79	386631.1	1650356.87
5.. 50	5351262.0	66512668.4	35.. 80	325980.56	1324376.31
6.. 51	5010118.9	61502549.5	36.. 81	273782.85	1050593.46
7.. 52	4712902.3	56789647.2	37.. 82	226710.35	823883.11
8.. 53	4444866.9	52344780.3	38.. 83	186183.41	637699.70
9.. 54	4197410.4	48147369.9	39.. 84	151039.76	486659.94
10.. 55	3966684.8	44180685.1	40.. 85	121301.54	365358.40
11.. 56	3746958.8	40433726.3	41.. 86	95399.71	269958.69
12.. 57	3534345.7	36899380.6	42.. 87	73317.58	196641.11
13.. 58	3326749.6	33572631.0	43.. 88	54723.88	141917.23
14.. 59	3120192.9	30452438.1	44.. 89	40648.79	101268.44
15.. 60	2913256.6	27539181.5	45.. 90	30355.85	70912.59
16.. 61	2703637.0	24835544.5	46.. 91	21366.02	49546.565
17.. 62	2501834.8	22333709.7	47.. 92	14526.883	35019.682
18.. 63	2310719.7	20022990.0	48.. 93	9958.081	25061.601
19.. 64	2132234.5	17890755.5	49.. 94	7027.602	18033.999
20.. 65	1964326.9	15926428.6	50.. 95	5022.783	13011.216
21.. 66	1807071.7	14119356.9	51.. 96	3670.656	9340.560
22.. 67	1660145.3	12459211.6	52.. 97	2735.875	6604.685
23.. 68	1522085.2	10937126.4	53.. 98	2024.691	4579.9941
24.. 69	1392426.6	9544699.8	54.. 99	1512.212	3067.7821
25.. 70	1234923.1	8309776.7	55..100	1175.2274	1892.5547
26.. 71	1155349.7	7154427.0	56..101	867.3266	1025.2281
27.. 72	1042846.7	6111580.3	57..102	587.1964	438.0317
28.. 73	931642.4	5179937.9	58..103	333.2902	104.7415
29.. 74	822602.9	4357335.0			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	9568639.	93013469.9	29 & 75	723121.0	3680690.2
1.. 47	7706348.8	85307121.1	30.. 76	625718.6	3054971.6
2.. 48	6745614.1	78561507.0	31.. 77	536828.7	2518142.9
3.. 49	6009470.5	72552036.5	32.. 78	458227.9	2059915.0
4.. 50	5509509.1	67042527.4	33.. 79	390556.8	1669358.19
5.. 51	5100925.5	61941601.9	34.. 80	329324.27	1340033.92
6.. 52	4771509.9	57170092.0	35.. 81	276620.25	1063413.67
7.. 53	4484310.3	52685781.7	36.. 82	229128.13	834285.54
8.. 54	4225207.8	48460573.9	37.. 83	188226.63	646058.91
9.. 55	3986948.1	44473625.8	38.. 84	152745.42	493313.49
10.. 56	3763855.5	40709770.3	39.. 85	122759.55	370553.94
11.. 57	3551465.1	37158305.2	40.. 86	96656.73	273897.21
12.. 58	3343467.0	33814838.2	41.. 87	74341.66	199555.55
13.. 59	3136446.3	30678391.9	42.. 88	55521.88	144033.67
14.. 60	2929441.4	27748950.5	43.. 89	41250.31	102783.36
15.. 61	2720478.1	25028472.4	44.. 90	30811.79	71971.57
16.. 62	2518731.0	22509741.4	45.. 91	21687.18	50284.389
17.. 63	2326808.0	20182933.4	46.. 92	14745.357	35539.032
18.. 64	2147184.1	18035749.3	47.. 93	10105.657	25433.375
19.. 65	1978196.7	16057552.6	48.. 94	7126.915	18306.460
20.. 66	1819921.8	14237630.8	49.. 95	5092.465	13213.995
21.. 67	1671756.6	12565874.2	50.. 96	3720.580	9493.415
22.. 68	1532806.1	11033068.1	51.. 97	2775.545	6717.870
23.. 69	1402303.6	9630764.5	52.. 98	2055.944	4661.926
24.. 70	1243745.6	8387018.9	53.. 99	1537.033	3124.8932
25.. 71	1163862.5	7223156.4	54..100	1195.4253	1929.4679
26.. 72	1050587.6	6172568.8	55..101	883.1553	1046.3126
27.. 73	938936.1	5233632.7	56..102	598.5692	447.7434
28.. 74	829821.5	4403811.2	57..103	340.4036	107.3398

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 47	9108083.	87176919.2	16 & 63	2342522.0	20340863.2
1.. 48	7337015.2	79839904.0	17.. 64	2162133.8	18178729.4
2.. 49	6426680.1	73413223.9	18.. 65	1992066.3	16186663.1
3.. 50	5726803.1	67686420.8	19.. 66	1832771.8	14353891.3
4.. 51	5251769.3	62434651.5	20.. 67	1683644.4	12670246.9
5.. 52	4857991.7	57576659.8	21.. 68	1543526.8	11126720.1
6.. 53	4540075.2	53036584.6	22.. 69	1412180.6	9714539.5
7.. 54	4262702.0	48773882.6	23.. 70	1252568.0	8461971.5
8.. 55	4013351.7	44760530.9	24.. 71	1172177.2	7289794.3
9.. 56	3783082.6	40977448.3	25.. 72	1058328.4	6231465.9
10.. 57	3567480.2	37409968.1	26.. 73	945905.6	5285560.3
11.. 58	3359661.9	34050306.2	27.. 74	836318.0	4449242.3
12.. 59	3152207.5	30898098.7	28.. 75	729466.5	3719775.8
13.. 60	2944701.3	27953397.4	29.. 76	631929.2	3087846.6
14.. 61	2735591.9	25217805.5	30.. 77	542307.4	2545539.2
15.. 62	2534420.3	22683385.2	31.. 78	462952.9	2082586.3

TABLE XXVIII. 651

Prepatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Forty-Seven Years—continued.

Ages	D.	N.	Ages	D.	N.
32 & 79	394553.7	1688032.60	45 & 92	14966.997	36066.102
33.. 80	332667.97	1355364.63	46.. 93	10257.638	25808.464
34.. 81	279457.64	1075906.99	47.. 94	7232.534	18575.930
35.. 82	231502.74	844404.25	48.. 95	5164.430	13411.500
36.. 83	190234.00	654170.25	49.. 96	3772.195	9639.305
37.. 84	154421.68	499748.57	50.. 97	2813.294	6826.011
38.. 85	124145.86	375602.71	51.. 98	2085.763	4740.258
39.. 86	97818.51	277784.20	52.. 99	1560.758	3179.5002
40.. 87	75321.21	202462.99	53..100	1215.0461	1964.4541
41.. 88	56297.39	146165.60	54..101	898.3336	1066.1205
42.. 89	41851.83	104313.77	55..102	609.4931	456.6274
43.. 90	31267.75	73046.02	56..103	346.9966	109.6308
44.. 91	22012.92	51033.099			

Difference of Age Forty-Eight Years.

Ages	D.	N.	Ages	D.	N.
0 & 48	8671570.	81609888.6	28 & 76	637474.4	3120497.9
1.. 49	6990119.8	74619768.8	29.. 77	547690.2	2572807.7
2.. 50	6124388.5	68495380.3	30.. 78	467677.7	2105130.0
3.. 51	5458898.3	63036482.0	31.. 79	398622.0	1706508.01
4.. 52	5001651.6	58034830.4	32.. 80	336072.47	1370435.54
5.. 53	4622362.3	53412468.1	33.. 81	282295.04	1088140.50
6.. 54	4315711.1	49096757.0	34.. 82	233877.35	854263.15
7.. 55	4048965.9	45047791.1	35.. 83	192205.52	662057.63
8.. 56	3808136.1	41239655.0	36.. 84	156068.54	503989.09
9.. 57	3585704.1	37653950.9	37.. 85	125508.26	380480.83
10.. 58	3374812.0	34279138.9	38.. 86	98923.16	281557.67
11.. 59	3167476.0	31111662.9	39.. 87	76226.55	205331.12
12.. 60	2959498.8	28152164.1	40.. 88	57039.19	148291.93
13.. 61	2749842.0	25402322.1	41.. 89	42436.40	105855.53
14.. 62	2548500.4	22853821.7	42.. 90	31723.69	74131.84
15.. 63	2357113.7	20496708.0	43.. 91	22338.67	51793.166
16.. 64	2176735.7	18319972.3	44.. 92	15191.802	36601.364
17.. 65	2005935.8	16314036.5	45.. 93	10411.823	26189.541
18.. 66	1845621.8	14468414.7	46.. 94	7341.306	18848.235
19.. 67	1695532.3	12772882.4	47.. 95	5240.967	13607.268
20.. 68	1554502.7	11218379.7	48.. 96	3825.504	9781.764
21.. 69	1422057.7	9796322.0	49.. 97	2852.323	6929.441
22.. 70	1261390.4	8534931.6	50.. 98	2114.122	4815.319
23.. 71	1180491.9	7354439.7	51.. 99	1583.388	3231.9305
24.. 72	1065889.2	6288550.5	52..100	1233.8012	1998.1293
25.. 73	952875.1	5335675.4	53..101	913.0780	1085.0513
26.. 74	842525.8	4493149.6	54..102	619.9680	465.0833
27.. 75	735177.3	3757972.3	55..103	353.3292	1·11.7541

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 3½ per Cent.)

Difference of Age Forty-Nine Years.

Ages.	D.	N.	Ages.	D.	
0 & 49	8261576.	76294860.4	28 & 77	552496.2	▬
1.. 50	6661325.6	69633474.8	29.. 78	472319.6	2127
2.. 51	5837884.2	63795590.6	30.. 79	402690.3	1724
3.. 52	5198916.0	58596674.6	31.. 60	339537.76	▬
4.. 53	4759054.3	53837620.3	32.. 81	285184.02	1100
5.. 54	4393931.7	49443688.6	33 . 82	236251.96	863
6.. 55	4099316.9	45344371.7	34.. 83	194177.05	669
7.. 56	3841929.3	41502442.4	35.. 84	157685.98	512
8.. 57	3609450.5	37892991.9	36.. 85	126846.75	▬
9.. 58	3392051.7	34500940.2	37.. 86	100008.76	285
10.. 59	3181759.4	31319180.8	38.. 87	77087.36	208
11.. 60	2973833.8	28345347.0	39.. 88	57724.78	150
12.. 61	2763660.3	25581686.7	40.. 89	42995.55	107
13.. 62	2561775.9	23019910.8	41.. 90	32166.81	75
14.. 63	2370208.8	20649702.0	42.. 91	22664.41	52
15.. 64	2190294.6	18459407.4	43.. 92	15416.607	37
16.. 65	2019482.9	16439924.5	44.. 93	10568.209	26
17.. 66	1858471.9	14581452.6	45.. 94	7451.655	19
18.. 67	1707420.1	12874032.5	46.. 95	5319.786	13
19.. 68	1565478.7	11308553.8	47.. 96	3882.197	9
20.. 69	1432169.9	9876383.9	48.. 97	2892.632	7
21.. 70	1270212.8	8606171.1	49.. 98	2143.451	4
22.. 71	1196806.6	7417361.5	50.. 99	1604.923	3
23.. 72	1073450.0	6343914.5	51..100	1251.6968	2
24.. 73	959882.5	5384232.0	52..101	927.1721	1
25.. 74	848733.6	4535498.4	53..102	630.1437	
26.. 75	740634.3	3794864.1	54..103	359.4017	
27.. 76	642465.1	3152399.0			

Difference of Age Fifty Years.

Ages.	D.	N.	Ages.	D.	
0 &50	7672977.	71217771.0	17 &67	1719307.8	129
1..51	6349702.7	64866068.3	18..68	1576454.6	113
2..52	5559852.5	59308215.8	19..69	1442282.0	99.
3..53	4946750.5	54361465.3	20..70	1279245.1	86
4..54	4523868.4	49837596.9	21..71	1197121.3	74
5..55	4173615.4	45663981.5	22..72	1061010.7	63
6..56	3889705.7	41774275.8	23..73	966489.9	54
7..57	3641480.6	38132795.2	24..74	854796.9	45
8..58	3414515.7	34718279.4	25..75	746091.2	38
9..59	3198013.0	31520266.5	26..76	647234.0	31
10..60	2987244.0	28533022.5	27..77	556821.4	26
11..61	2777046.7	25755975.8	28..78	476464.2	21.
12..62	2574649.2	23181326.6	29..79	406687.2	17.
13..63	2382555.5	20798771.1	30..80	343003.05	14
14..64	2202462.9	18596308.2	31..81	288124.60	11.
15..65	2032062.4	16564245.8	32..82	238669.73	8
16..66	1871022.9	14693223.9	33..83	196148.56	6

TABLE XXVIII. 653

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Fifty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
34 & 84	159303.42	517967.20	44 & 94	7563.578	19407.013
35..85	128161.34	389805.86	45.. 95	5399.748	14007.265
36..86	101075.32	288730.54	46.. 96	3940.582	10066.683
37..87	77933.33	210797.21	47.. 97	2935.501	7131.1818
38..88	58376.65	152420.56	48.. 98	2173.742	4957.4398
39..89	43512.34	108908.22	49.. 99	1627.189	3330.2508
40..90	32590.65	76317.57	50..100	1268.7147	2061.5361
41..91	22980.97	53336.598	51..101	940.6157	1120.9204
42..92	15641.413	37695.185	52..102	639.8704	481.0500
43..93	10724.594	26970.591	53..103	365.3007	115.7493

Difference of Age Fifty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 51	7504672.	66365121.8	27 & 78	480194.4	2171696.8
1..52	6047295.5	60317826.3	28.. 79	410255.9	1761440.93
2..53	5290180.4	55027645.9	29.. 80	346407.55	1415033.38
3..54	4702289.1	50325356.8	30.. 81	291065.17	1123968.21
4..55	4297037.2	46028319.6	31.. 82	241130.70	882837.51
5..56	3960205.2	•42068114.4	32.. 83	198155.94	684681.57
6..57	3686764.3	38381350.1	33.. 84	160920.86	523760.71
7..58	3444815.9	34936534.2	34.. 85	129475.95	394284.76
8..59	3219191.9	31717342.3	35.. 86	102122.83	292161.93
9..60	3002504.0	28714838.3	36.. 87	78764.47	213397.46
10..61	2789569.6	25925268.7	37.. 88	59017.29	154380.17
11..62	2587120.2	23338148.5	38.. 89	44003.72	110376.45
12..63	2394528.2	20943620.3	39.. 90	32982.37	77394.08
13..64	2213935.8	18729684.5	40.. 91	23283.79	54110.289
14..65	2043351.6	16686332.9	41.. 92	15859.886	38250.403
15..66	1882677.7	14803655.2	42.. 93	10880.982	27369.421
16..67	1730919.2	13072736.0	43.. 94	7675.504	19693.917
17..68	1587430.6	11485305.4	44.. 95	5480.854	14213.063
18..69	1452394.2	10032911.2	45.. 96	3999.813	10213.250
19..70	1288277.7	8744633 5	46.. 97	2979.648	7233.602
20..71	1205634.0	7538999.5	47.. 98	2205.957	5027.645
21..72	1088571.4	6450428.1	48.. 99	1650.184	3377.4611
22..73	973297.3	5477130.8	49..100	1286.3157	2091.1454
23..74	860860.4	4616270.4	50..101	953.4087	1137.7367
24..75	751421.6	3864848.8	51..102	649.1483	488.5884
25..76	652002.9	3212845.9	52..103	370.9393	117.6491
26..77	560954.7	2651891.2			

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 3½ per Cent.)

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	1
0 &52	7147259.	61730980.0	26 & 78	483758.8	21926!
1..53	5753981.0	55976999.0	27.. 79	413467.7	17792:
2..54	5028747.2	50948251.8	28.. 80	349447.28	142971
3..55	4466511.6	46481740.2	29.. 81	293954.15	113582
4..56	4077315.8	42404424.4	30.. 82	243591.66	8922:
5..57	3753585.6	38650838.8	31.. 83	200199.15	6920:
6..58	3487654.0	35163184.8	32.. 84	162567.71	5294(
7..59	3247758.7	31915426.1	33.. 85	130790.54	3986:
8..60	3022388.0	28893038.1	34.. 86	103170.34	2955(
9..61	2803819.8	26089218.3	35.. 87	79580.76	2159:
10..62	2598786.5	23490431.8	36.. 88	59646.68	1562:
11..63	2406126.7	21084305.1	37.. 89	44486.63	1117!
12..64	2225001.2	18859243.9	38.. 90	33354.84	784:
13..65	2053995.8	16805248.1	39.. 91	23563.65	548:
14..66	1893137.0	14912111.1	40.. 92	16068.860	388(
15..67	1741701.2	13170409.9	41.. 93	11032.965	277'
16..68	1598151.4	11572258.5	42.. 94	7787.428	199!
17..69	1462506.5	10109752.0	43.. 95	5561.958	144:
18..70	1297310.1	8812441.9	44.. 96	4059.891	103(
19..71	1214146.7	7598295.2	45.. 97	3024.435	73:
20..72	1096312.3	6501982.9	46.. 98	2239.133	50!
21..73	980104.7	5521878.2	47.. 99	1674.639	34:
22..74	866923.7	4654954.5	48..100	1304.4938	21:
23..75	756751.7	3898202.8	49..101	966.6355	11!
24..76	656660.8	3241542.0	50..102	657.9772	4!
25..77	565087.9	2676454.1	51..103	376.3178	1!

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	1
0 &53	6800592.	57309461.5	19 & 72	1104053.2	6552?
1..54	5469627.3	51839834.2	20.. 73	987074.2	6565?
2..55	4776600.8	47063233.4	21.. 74	872987.2	4692?
3..56	4238124.5	42825108.9	22.. 75	762081.8	3930(
4..57	3864586.1	38960522.8	23.. 76	661318.7	3269:
5..58	3550866.4	35409656.4	24.. 77	569124.8	2700?
6..59	3288148.5	32121507.9	25.. 78	487323.0	2212!
7..60	3049208.5	29072299.4	26.. 79	416536.7	17963
8..61	2822388.1	26249911.3	27.. 80	352183.03	14441
9..62	2612062.1	23637849.2	28.. 81	296533.59	11476
10..63	2416976.9	21220872.3	29.. 82	246009.44	9016
11..64	2235838.9	18985033.4	30.. 83	202242.36	6993
12..65	2064317.3	16920716.1	31.. 84	164243.97	5371
13..66	1902993.7	15017717.4	32.. 85	132129.05	4030
14..67	1751377.3	13266340.1	33.. 86	104217.85	2987
15..68	1608106.3	11658233.8	34.. 87	80397.05	2183
16..69	1472383.5	10185850.3	35.. 88	60264.84	1581
17..70	1306342.5	8879507.8	36.. 89	44961.06	1131
18..71	1222659.4	7656348.4	37.. 90	33720.88	794

TABLE XXVIII. 655

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Fifty-Three Years—continued.

Ages.	D.	N.	Ages.	D.	N.
38 &91	23829.74	55615.912	45 & 98	2272.789	5173.686
39..92	16262.004	39353.908	46.. 99	1699.825	3473.8605
40..93	11178.338	28175.570	47..100	1323.8261	2150.0344
41..94	7896.200	20279.370	48..101	980.2958	1169.7386
42..95	5643.063	14636.307	49..102	667.1053	502.6333
43..96	4119.969	10516.338	50..103	381.4359	121.1974
44..97	3069.863	7446.475			

Difference of Age Fifty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 &54	6464516.	53094616.3	25 & 79	419605.8	1812794.21
1..55	5195374.7	47899241.6	26.. 80	354797.21	1457997.01
2..56	4532357.8	43366883.8	27.. 81	298855.11	1159141.90
3..57	4017004.8	39349879.0	28.. 82	248168.18	910973.72
4..58	3655872.1	35694006.9	29.. 83	204249.74	706723.98
5..59	3347742.8	32346264.1	30.. 84	165920.23	540803.75
6..60	3087127.1	29259137.0	31.. 85	133491.45	407312.30
7..61	2847433.8	26411703.2	32.. 86	105284.40	302027.90
8..62	2629360.5	23782342.7	33.. 87	81213.33	220814.57
9..63	2429323.7	21353019.0	34.. 88	60883.00	159931.57
10..64	2245921.1	19107097.9	35.. 89	45427.02	114504.55
11..65	2074316.3	17032781.6	36.. 90	34080.50	80424.05
12..66	1912561.5	15120220.1	37.. 91	24091.27	56332.775
13..67	1760500.5	13359719.6	38.. 92	16445.648	39887.127
14..68	1617040.3	11742679.3	39.. 93	11312.699	28574.428
15..69	1481555.0	10261124.3	40.. 94	8000.242	20574.186
16..70	1315164.9	8945959.4	41.. 95	5721.884	14852.302
17..71	1231172.1	7714787.3	42.. 96	4180.047	10672.255
18..72	1111793.8	6602993.5	43.. 97	3115.289	7556.966
19..73	994043.6	5608949.9	44.. 98	2306.926	5250.040
20..74	879194.9	4729755.0	45.. 99	1725.375	3524.6652
21..75	767411.9	3962343.1	46..100	1343.7354	2180.9298
22..76	665976.7	3296366.4	47..101	994.8235	1186.1063
23..77	573161.8	2723204.6	48..102	676.5328	509.5735
24..78	490804.6	2232400.0	49..103	386.7278	122.8457

Difference of Age Fifty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 &55	6140379.	49078984.5	8 & 63	2445411.9	21482550.5
1..56	4929718.3	44149266.2	9.. 64	2257394.1	19225156.4
2..57	4295886.8	39853379.4	10.. 65	2083670.2	17141486.2
3..58	3800059.0	36053320.4	11.. 66	1921825.4	15219660.8
4..59	3446741.8	32606578.6	12.. 67	1769347.2	13450313.6
5..60	3143080.0	29463498.6	13.. 68	1625463.5	11824850.1
6..61	2882843.1	26580655.5	14.. 69	1489785.8	10335064.3
7..62	2652693.1	23927962.4	15.. 70	1323357.1	9011707.2

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Fifty-Five Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
16 &71	1239486.8	7772220.4	33 & 88	61501.16	161703.64
17..72	1119534.6	6652685.8	34.. 89	45892.98	115810.66
18..73	1001013.2	5651672.6	35.. 90	34433.70	81376.96
19..74	885402.7	4766269.9	36.. 91	24348.18	57028.778
20..75	772868.9	3993401.0	37.. 92	16626.126	40402.652
21..76	670634.6	3322766.4	38.. 93	11440.450	28962.202
22..77	577198.9	2745567.5	39.. 94	8096.402	20865.800
23..78	494286.0	2251231.5	40.. 95	5797.277	15068.523
24..79	422603.5	1828678.02	41.. 96	4238.432	10830.091
25..80	357411.36	1471266.66	42.. 97	3160.717	7669.374
26..81	301073.43	1170193.23	43.. 98	2341.064	5328.3098
27..82	250111.03	920082.20	44.. 99	1751.290	3577.0198
28..83	206042.01	714040.19	45..100	1363.9332	2213.0866
29..84	167567.07	546473.12	46..101	1009.7850	1203.3016
30..85	134853.85	411619.27	47..102	686.5589	516.7427
31..86	106370.01	305249.26	48..103	392.1929	124.5498
32:.87	82044.46	223204.80			

Difference of Age Fifty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 &56	5826402.	45256213.0	24 & 80	359964.74	1484073.58
1..57	4672515.5	40583697.5	25.. 81	303291.76	1180781.82
2..58	4063879.6	36519817.9	26.. 82	251967.55	928814.27
3..59	3582680.8	32937137.1	27.. 83	207655.09	721159.18
4..60	3236027.0	29701110.1	28.. 84	169037.48	552121.70
5..61	2935093.5	26766016.6	29.. 85	136192.35	415929.35
6..62	2685680.9	24080335.7	30.. 86	107455.62	308473.73
7..63	2467112.4	21613223.3	31.. 87	82890.44	225583.29
8..64	2272343.8	19340879.5	32.. 88	62130.56	163452.73
9..65	2094314.4	17246565.1	33.. 89	46358.94	117093.79
10..66	1930491.8	15316073.3	34.. 90	34786.90	82306.89
11..67	1777917.5	13538155.8	35.. 91	24600.53	57706.362
12..68	1633631.8	11904524.0	36.. 92	16803.437	40902.925
13..69	1497546.3	10406977.7	37.. 93	11566.001	29336.924
14..70	1330709.1	9076268.6	38.. 94	8187.834	21149.090
15..71	1247207.6	7829061.0	39.. 95	5866.959	15282.131
16..72	1127095.4	6701965.6	40.. 96	4294.279	10987.852
17..73	1007982.6	5693983.0	41.. 97	3204.864	7782.988
18..74	891610.5	4802372.5	42.. 98	2375.201	5407.787
19..75	778326.0	4024046.5	43.. 99	1777.205	3630.5821
20..76	675403.5	3348643.0	44..100	1384.4196	2246.1625
21..77	581235.9	2767407.1	45..101	1024.9631	1221.1994
22..78	497767.6	2269639.5	46..102	696.8842	524.3152
23..79	425601.2	1844038.3	47..103	398.0051	126.3101

TABLE XXVIII. 657

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 3½ per Cent.)

Difference of Age Fifty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 57	5522415.	41619513.1	24 & 81	305458.50	1190992.03
1.. 58	4420167.9	37199345.2	25.. 82	253824.06	937167.97
2.. 59	3831409.7	33367935.5	26.. 83	209196.46	727971.51
3.. 60	3363655.3	30004280.2	27.. 84	170360.84	557610.67
4.. 61	3021889.8	26962390.4	28.. 85	137387.44	420223.23
5.. 62	2734357.9	24248032.5	29.. 86	108522.17	311701.06
6.. 63	2497792.3	21750240.2	30.. 87	83736.40	227964.66
7.. 64	2292508.4	19457731.8	31.. 88	62771.20	165193.46
8.. 65	2108184.1	17349547.7	32.. 89	46833.39	118360.07
9.. 66	1940353.4	15409194.3	33.. 90	35140.10	83219.97
10.. 67	1785934.8	13623259.5	34.. 91	24852.86	58367.113
11.. 68	1641544.7	11981714.8	35.. 92	16977.583	41389.530
12.. 69	1505071.8	10476643.0	36.. 93	11689.347	29700.183
13.. 70	1337640.9	9139002.1	37.. 94	8277.688	21422.495
14.. 71	1254136.5	7884865.6	38.. 95	5933.213	15489.282
15.. 72	1134116.1	6750749.5	39.. 96	4345.895	11143.387
16.. 73	1014790.1	5735959.4	40.. 97	3247.092	7896.295
17.. 74	897818.3	4838141.1	41.. 98	2408.378	5487.917
18.. 75	783783.0	4054358.1	42.. 99	1803.121	3684.7962
19.. 76	680172.4	3374185.7	43..100	1404.9061	2279.8901
20.. 77	585369.1	2788816.6	44..101	1040.3582	1239.5319
21.. 78	501249.0	2287567.6	45..102	707.3591	532.1728
22.. 79	428599.0	1858968.6	46..103	403.9908	128.1820
23.. 80	362518.11	1496450.53			

Difference of Age Fifty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 58	5224167.	38165415.2	23 & 81	307625.24	1200854.00
1.. 59	4167316.7	33998098.5	24.. 82	255637.39	945216.61
2.. 60	3597178.3	30400920.2	25.. 83	210737.83	734478.78
3.. 61	3141072.6	27259847.6	26.. 84	171625.39	562853.39
4.. 62	2815217.9	24444629.7	27.. 85	138463.03	424390.36
5.. 63	2543063.8	21901565.9	28.. 86	109474.45	314915.91
6.. 64	2321017.0	19580548.9	29.. 87	84567.53	230348.38
7.. 65	2126892.0	17453656.9	30.. 88	63411.84	166936.54
8.. 66	1953203.4	15500453.5	31.. 89	47316.29	119620.25
9.. 67	1795058.0	13705395.5	32.. 90	35499.72	84120.53
10.. 68	1648947.1	12056448.4	33.. 91	25105.20	59015.329
11.. 69	1512362.0	10544086.4	34.. 92	17151.728	41863.601
12.. 70	1344362.8	9199723.6	35.. 93	11810.492	30053.109
13.. 71	1260669.5	7939054.1	36.. 94	8365.968	21687.141
14.. 72	1140416.8	6798637.3	37.. 95	5998.325	15688.816
15.. 73	1021111.2	5777526.1	38.. 96	4394.973	11293.843
16.. 74	903381.7	4873644.4	39.. 97	3286.122	8007.721
17.. 75	789240.2	4084404.2	40.. 98	2440.112	5567.609
18.. 76	684941.2	3399463.0	41.. 99	1828.307	3739.3024
19.. 77	589502.3	2809960.7	42..100	1425.3925	2313.9099
20.. 78	504813.4	2305147.3	43..101	1055.7533	1258.1566
21.. 79	431596.6	1873550.73	44..102	717.9837	540.1729
22.. 80	365071.49	1508479.24	45..103	410.0632	130.1097

TABLE XXVIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 3½ per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	
0 & 59	4926324.	34896015.8	23 & 82	267450.73	9529
1.. 60	3912549.9	30983465.9	24.. 83	212243.37	7407
2.. 61	3359142.6	27624323.3	25.. 84	172889.93	5678
3.. 62	2926249.7	24693073.6	26.. 85	139490.80	4283
4.. 63	2618206.9	22079806.7	27.. 86	110331.51	3180
5.. 64	2363084.6	19716722.1	28.. 87	85309.61	2327
6.. 65	2153341.0	17563381.1	29.. 88	64041.23	1686
7.. 66	1970536.0	15592845.1	30.. 89	47799.19	1208
8.. 67	1806945.9	13785899.2	31.. 90	35865.76	850
9.. 68	1657370.5	12128528.7	32.. 91	25362.12	596
10.. 69	1519181.8	10609346.9	33.. 92	17325.873	423
11.. 70	1350874.6	9258472.3	34.. 93	11931.636	303
12.. 71	1267004.6	7991467.7	35.. 94	8452.670	219
13.. 72	1146357.3	6845110.4	36.. 95	6062.295	158
14.. 73	1026784.0	5818326.4	37.. 96	4443.204	114
15.. 74	909512.0	4908814.4	38.. 97	3323.231	81
16.. 75	794570.3	4114244.1	39.. 98	2469.441	66
17.. 76	669710.0	3424534.1	40.. 99	1852.397	37
18.. 77	594635.4	2830898.7	41..100	1445.3019	23
19.. 78	508377.8	2322520.9	42..101	1071.1484	12
20.. 79	434665.7	1887855.18	43..102	728.6083	5
21.. 80	367624.86	1520230.32	44..103	416.2224	1
22.. 81	309791.98	1210438.34			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	
0 & 60	46-4217.	31815485.9	22 & 82	259264.07	9605
1.. 61	3653645.3	28161840.6	23.. 83	213748.88	7467
2.. 62	3129405.5	25032435.1	24.. 84	174125.08	5726
3.. 63	2721531.1	22310904.0	25.. 85	140518.56	4321
4.. 64	2432965.3	19877938.7	26.. 86	111150.47	3209
5.. 65	2192369.4	17685569.3	27.. 87	85977.48	2350
6.. 66	1995040.6	15690528.7	28.. 88	64603.19	1704
7.. 67	1822980.5	13867548.2	29.. 89	48273.62	1221
8.. 68	1668346.4	12199201.8	30.. 90	36231.80	859
9.. 69	1526942.3	10672259.5	31.. 91	25623.63	602
10.. 70	1356966.1	9315293.4	32.. 92	17503.184	427
11.. 71	1273141.7	8042151.7	33.. 93	12052.780	307
12.. 72	1152118.0	6890033.7	34.. 94	8539.372	221
13.. 73	1032132.7	5857901.0	35.. 95	6125.123	160
14.. 74	914564.8	4943336.2	36.. 96	4490.589	115
15.. 75	799519.6	4143816.6	37.. 97	3359.701	62
16.. 76	694368.0	3449448.6	38.. 98	2497.328	57
17.. 77	597768.4	2851680.2	39.. 99	1874.662	38
18.. 78	511942.0	2339738.2	40..100	1464.3455	23
19.. 79	437734.8	1902003.38	41..101	1086.1098	12
20.. 80	370239.03	1531764.35	42..102	739.2330	5
21.. 81	311958.71	1219806.64	43..103	422.3815	1

TABLE XXIX. 659

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)
Difference 0.

Common Age.	D.	N.	Common Age.	D.	N.
0	100000000.	889565212.4	52	2378711.3	22442655.7
1	68835116.2	820730096.2	53	2218214.3	20224441.4
2	55947522.9	764782573.3	54	2064569.6	18159871.8
3	47037753.9	717744819.4	55	1918647.3	16241224.5
4	41861474.1	675883345.3	56	1779315.5	14461909.0
5	37972382.3	637910963.0	57	1646484.6	12815424.4
6	35223509.3	602687453.7	58	1517682.8	11297741.6
7	33041861.6	569645592.1	59	1389517.0	9908224.6
8	31214570.9	538431021.2	60	1261589.2	8646635.4
9	29620388.8	508810632.4	61	1133178.5	7513456.9
10	28192373.7	480618258.7	62	1013007.1	6500449.8
11	26865212.9	453753045.8	63	902534.2	5597915.6
12	25583495.1	428169550.7	64	802703.2	4795212.4
13	24354134.4	403815416.3	65	711658.1	4083554.3
14	23175359.8	380640056.5	66	629211.3	3454343.0
15	22038448.0	358601608.5	67	554675.9	2899667.1
16	20929265.2	337672343.3	68	487044.7	2412622.4
17	19855203.7	317817139.6	69	425816.4	1986806.0
18	18828445.5	298988694.1	70	370212.1	1616593.9
19	17853052.3	281135641.8	71	320153.9	1296440.0
20	16926524.8	264209117.0	72	272674.1	1023765.9
21	16046481.1	248162635.9	73	227678.6	796087.3
22	15215721.9	232946914.0	74	186054.7	610032.6
23	14426560.9	218520353.1	75	148091.2	461941.4
24	13676972.5	204843380.6	76	116490.8	345450.6
25	12965027.2	191878353.4	77	90130.5	255320.1
26	12284677.0	179593676.4	78	69043.2	186276.9
27	11638764.9	167954911.5	79	52725.1	133551.767
28	11017930.2	156936981.3	80	39402.039	94149.728
29	10410654.7	146526326.6	81	29224.726	64925.002
30	9814450.5	136711876.1	82	21083.475	43841.527
31	9247255.2	127464620.9	83	14969.557	28871.970
32	8711024.1	118753596.8	84	10377.931	18494.039
33	8207142.5	110546454.3	85	7061.325	11432.714
34	7733643.3	102812811.0	86	4618.118	6814.596
35	7285959.2	95526851.8	87	2888.569	3926.027
36	6862746.5	88664105.3	88	1706.247	2219.780
37	6460267.3	82203838.0	89	998.596	1221.184
38	6077668.3	76126169.7	90	590.985	630.199
39	5714125.9	70412043.8	91	310.702	319.49711
40	5364614.3	65047429.5	92	152.42468	167.07243
41	5024989.2	60022440.3	93	75.97784	91.09459
42	4699521.5	55322918.8	94	40.08539	51.00920
43	4389812.1	50933106.7	95	21.68080	29.32840
44	4098770.1	46834336.6	96	12.25336	17.07504
45	3825347.9	43008988.7	97	7.21624	9.85880
46	3570087.5	39438901.2	98	4.19748	5.66132
47	3331807.3	36107093.9	99	2.49163	3.1696902
48	3110775.8	32996318.1	100	1.6038032	1.5658870
49	2908348.9	30087969.2	101	.9328865	.6330005
50	2720482.7	27367486.5	102	.4576563	.1753442
51	2546119.6	24821367.0	103	.1584191	.0169251

TABLE XXIX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	81355769.	837621127.1	52 & 53	2252454.0	20686649.8
1.. 2	60852550.5	776768576.6	53.. 54	2098455.8	18788194.0
2.. 3	50303366.5	726465210.1	54.. 55	1951621.9	16836572.1
3.. 4	43512184.0	682952726.1	55.. 56	1811788.0	15024784.1
4.. 5	39095296.6	643857429.5	56.. 57	1678373.6	13346410.5
5.. 6	35861922.3	607995507.2	57.. 58	1550074.8	11796335.7
6.. 7	33452755.3	574542751.9	58.. 59	1423986.3	10372349.4
7.. 8	31491566.9	543051185.0	59.. 60	1298297.5	9074051.9
8.. 9	29916550.4	513234634.6	60.. 61	1172442.3	7901609.6
9..10	28336390.4	484898244.2	61.. 62	1050603.2	6851006.4
10..11	26986359.1	457911885.1	62.. 63	937608.3	5913398.1
11..12	25707415.2	432204469.9	63.. 64	834627.4	5078770.7
12..13	24476517.1	407727952.8	64.. 65	741133.8	4337636.9
13..14	23296083.9	384431868.9	65.. 66	656171.3	3681465.6
14..15	22160883.8	362270985.1	66.. 67	579297.0	3102168.6
15..16	21059634.4	341211350.7	67.. 68	509668.1	2592500.5
16..17	19989295.9	321222054.8	68.. 69	446559.1	2145941.4
17..18	18959537.4	302262517.4	69.. 70	389331.8	1756609.6
18..19	17978224.6	284284292.8	70.. 71	337568.8	1419020.8
19..20	17046038.9	267238253.9	71.. 72	289724.3	1129296.5
20..21	16160587.0	251077666.9	72.. 73	244324.1	884972.4
21..22	15322143.3	235755523.6	73.. 74	201820.2	683152.3
22..23	14528173.4	221227350.2	74.. 75	162767.6	520384.6
23..24	13773988.7	207453361.5	75.. 76	128793.5	391591.1
24..25	13057650.3	194395711.2	76.. 77	100476.6	291114.5
25..26	12375191.2	182020520.0	77.. 78	77353.5	213761.0
26..27	11725156.6	170295363.4	78.. 79	59163.3	154597.73
27..28	11104187.5	159191175.9	79.. 80	44634.24	109903.479
28..29	10502008.3	148689167.6	80.. 81	33274.987	76628.492
29..30	9911864.4	138777303.2	81.. 82	24340.509	52287.983
30..31	9341631.8	129435671.4	82.. 83	17420.432	34867.551
31..32	8800844.7	120634826.7	83.. 84	12222.025	22645.526
32..33	8291131.0	112343692.7	84.. 85	8394.248	14251.278
33..34	7812164.7	104531528.0	85.. 86	5599.624	8651.654
34..35	7360694.0	97170331.0	86.. 87	3581.436	5070.218
35..36	6933869.8	90236964.2	87.. 88	2176.936	2893.282
36..37	6529163.6	83707800.6	88.. 89	1279.968	1613.314
37..38	6144365.8	77563434.8	89.. 90	753.297	860.017
38..39	5778654.6	71784760.2	90.. 91	420.188	447.2045
39..40	5429095.5	66355684.7	91.. 92	213.3945	226.43449
40..41	5091199.9	61264484.8	92.. 93	105.52478	120.90951
41..42	4765162.7	56499322.1	93.. 94	54.11528	66.79423
42..43	4453924.6	52045497.5	94.. 95	28.90774	37.86649
43..44	4159423.1	47886074.4	95.. 96	15.98264	21.90385
44..45	3882804.9	44003269.5	96.. 97	9.22076	12.68309
45..46	3623750.0	40379519.5	97.. 98	5.39676	7.28633
46..47	3381915.1	36997604.4	98.. 99	3.17117	4.115156
47..48	3156876.7	33840727.7	99..100	1.960204	2.1549315
48..49	2949449.5	30891278.2	100..101	1.1994255	.9555360
49..50	2758224.3	28133053.9	101..102	.6407188	.3148073
50..51	2580748.5	25552305.4	102..103	.2640319	.0507754
51..52	2413201.6	23139103.6			

TABLE XXIX. 661

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 2	71921228.	792444275.0	51 & 53	2285113.6	21526096.0
1.. 3	54713560.1	737730714.9	52.. 54	2130847.0	19395249.0
2.. 4	46533353.5	691197361.4	53.. 55	1983654.3	17411594.7
3.. 5	40637208.9	650560152.5	54.. 56	1842926.0	15568668.7
4.. 6	36922426.3	613637726.2	55.. 57	1709003.9	13859664.8
5.. 7	34059073.9	579578652.3	56.. 58	1580096.7	12279568.1
6.. 8	31883181.7	547695470.6	57.. 59	1454378.3	10825189.8
7.. 9	30081140.3	517614330.3	58.. 60	1330503.9	9494685.9
8..10	28524048.7	489090281.6	59.. 61	1206556.8	8288129.1
9..11	27124215.1	461966066.5	60.. 62	1087005.8	7201123.3
10..12	25823340.4	436142726.1	61.. 63	972406.1	6228717.2
11..13	24595075.3	411547650.8	62.. 64	867062.5	5361654.7
12..14	23413149.7	388134501.1	63.. 65	770609.3	4591045.4
13..15	22276323.3	365858177.8	64.. 66	683348.7	3907696.7
14..16	21176632.4	344681545.4	65.. 67	604118.3	3303578.4
15..17	20113809.9	324567735.5	66.. 68	532291.3	2771287.1
16..18	19087580.5	305480155.0	67.. 69	467301.8	2303985.3
17..19	18103396.8	287376758.2	68.. 70	408297.2	1895688.1
18..20	17165552.9	270211205.3	69.. 71	355023.6	1540664.5
19..21	16274693.0	253936512.3	70.. 72	305501.9	1235162.6
20..22	15431098.5	238505413.8	71.. 73	259601.6	975561.0
21..23	14629785.9	223875627.9	72.. 74	216575.3	758985.7
22..24	13871004.8	210004623.1	73.. 75	176560.0	582425.7
23..25	13150273.4	196854349.7	74.. 76	141557.5	440868.2
24..26	12463600.5	184390749.2	75.. 77	111088.0	329780.2
25..27	11811548.2	172579201.0	76.. 78	86232.9	243547.3
26..28	11186611.1	161392589.9	77.. 79	66284.3	177263.04
27..29	10584226.5	150808363.4	78.. 80	50151.81	127111.23
28..30	9998841.0	140809522.4	79.. 81	37744.24	89366.991
29..31	9434352.6	131375169.8	80.. 82	27713.865	61653.126
30..32	8890665.2	122484504.6	81.. 83	20111.588	41541.538
31..33	8376624.9	114107879.7	82.. 84	14223.065	27318.473
32..34	7892113.7	106215766.0	83.. 85	9885.853	17432.620
33..35	7435428.7	98780337.3	84.. 86	6656.631	10773.989
34..36	7004993.0	91775344.3	85.. 87	4342.613	6433.376
35..37	6596829.7	85178514.6	86.. 88	2699.108	3734.268
36..38	6209893.3	78968621.3	87.. 89	1633.063	2101.205
37..39	5842070.8	73126550.5	88.. 90	965.553	1135.652
38..40	5490405.4	67636145.1	89.. 91	535.592	600.0602
39..41	5152394.7	62483750.4	90.. 92	288.5908	311.4694
40..42	4827949.8	57655800.6	91.. 93	147.7347	163.73471
41..43	4516034.0	53139766.6	92.. 94	75.16011	88.57460
42..44	4220076.0	48919690.6	93.. 95	39.02544	49.54916
43..45	3940262.1	44979428.5	94.. 96	21.31019	28.23897
44..46	3678179.1	41301249.4	95.. 97	12.02707	16.21190
45..47	3432749.1	37868500.3	96.. 98	6.89586	9.31604
46..48	3204353.6	34664146.7	97.. 99	4.07722	5.238821
47..49	2993159.5	31670987.2	98..100	2.494805	2.744016
48..50	2797203.2	28873784.0	99..101	1.465965	1.2780514
49..51	2616551.6	26257232.4	100..102	.8237813	.4542701
50..52	2446022.8	23811209.6	101..103	.3696445	.0846256

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 3	64665595.	752450420.2	51 & 54	2161743.4	19980911.9
1.. 4	50613022.7	701837397.5	52.. 55	2014273.5	17966638.4
2.. 5	43458461.4	658378936.1	53.. 56	1873174.4	16093464.0
3.. 6	38378640.9	620000295.2	54.. 57	1738375.4	14355088.6
4.. 7	35066264.4	584934030.8	55.. 58	1608933.5	12746155.1
5.. 8	32461052.4	552472978.4	56.. 59	1482546.8	11263608.3
6.. 9	30455215.7	522017762.7	57.. 60	1358900.9	9904707.4
7..10	28777169.1	493240593.6	58.. 61	1236487.4	8668220.0
8..11	27303845.6	465936748.0	59.. 62	1118634.3	7549585.7
9..12	25955255.4	439981492.6	60.. 63	1006099.1	6543486.6
10..13	24705984.4	415275508.2	61.. 64	899242.2	5644244.4
11..14	23526557.1	391748951.1	62.. 65	800556.5	4843687.9
12..15	22388264.6	369360686.5	63.. 66	710526.1	4133161.8
13..16	21286944.7	348073741.8	64.. 67	629139.8	3504022.0
14..17	20225553.3	327848188.5	65.. 68	555098.5	2948923.5
15..18	19206477.8	308641710.7	66.. 69	488044.6	2460878.9
16..19	18225658.1	290416052.6	67.. 70	427262.7	2033616.2
17..20	17285066.9	273130985.7	68.. 71	372317.8	1661298.4
18..21	16388798.8	256742186.9	69.. 72	321279.6	1340018.8
19..22	15540053.7	241202133.2	70.. 73	273738.8	1066280.0
20..23	14733817.8	226468315.4	71.. 74	230117.4	836162.6
21..24	13968021.1	212500294.3	72.. 75	189468.3	646694.3
22..25	13242896.6	199257397.7	73.. 76	153552.4	493141.9
23..26	12552009.7	186705388.0	74.. 77	122097.2	371044.7
24..27	11895930.8	174809457.2	75.. 78	95339.9	275704.8
25..28	11269034.7	163540422.5	76.. 79	73893.2	201811.64
26..29	10662790.6	152877631.9	77.. 80	56188.22	145623.42
27..30	10077120.0	142800511.9	78.. 81	42353.16	103270.26
28..31	9517139.2	133283372.7	79.. 82	31436.19	71834.067
29..32	8978910.0	124304462.7	80.. 83	22898.857	48935.210
30..33	8462115.9	115842346.8	81.. 84	16420.280	32514.930
31..34	7973490.4	107868856.4	82.. 85	11504.405	21010.525
32..35	7511522.4	100357334.0	83.. 86	7839.473	13171.052
33..36	7076116.3	93281217.7	84.. 87	5162.343	8008.709
34..37	6664495.8	86616721.9	85.. 88	3272.760	4735.949
35..38	6274250.6	80342471.3	86.. 89	2024.778	2711.171
36..39	5904374.2	74438097.1	87.. 90	1231.912	1479.259
37..40	5550658.2	68887438.9	88.. 91	686.504	792.7545
38..41	5210579.8	63676859.1	89.. 92	367.8515	424.9030
39..42	4885980.3	58790878.8	90.. 93	199.7936	225.1094
40..43	4575538.5	54215340.3	91.. 94	105.2242	119.88521
41..44	4279020.4	49936319.9	92.. 95	54.20201	65.68320
42..45	3997719.3	45938600.6	93.. 96	28.76876	36.91444
43..46	3732608.2	42205992.4	94.. 97	16.03609	20.87835
44..47	3484309.3	38721683.1	95.. 98	8.99460	11.88375
45..48	3252518.7	35469164.4	96.. 99	5.20979	6.673957
46..49	3038174.2	32430990.2	97..100	3.207607	3.466350
47..50	2838657.0	29592333.2	98..101	1.865773	1.600577
48..51	2653528.4	26938804.8	99..102	1.006844	.593733
49..52	2479956.7	24458848.1	100..103	.4752572	.118475
50..53	2316192.8	22142655.3			

TABLE XXIX.　　　663

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	59819197.	715738514.9	50 & 54	2191144.7	20545152.5
1.. 5	47268548.9	668469966.0	51.. 55	2043479.6	18501672.9
2.. 6	41043091.5	627426874.5	52.. 56	1902088.2	16599584.7
3.. 7	36449272.4	590977602.1	53.. 57	1766907.8	14832676.9
4.. 8	33420986.4	557556615.7	54.. 58	1636585.2	13196091.7
5.. 9	31007205.1	526549410.6	55.. 59	1509603.2	11686488.5
6..10	29135028.9	497414381.7	56.. 60	1385220.2	10301268.3
7..11	27546138.0	469868243.7	57.. 61	1262877.7	9038390.6
8..12	26127144.4	443741099.3	58.. 62	1146383.9	7892006.7
9..13	24832191.5	418908907.8	59.. 63	1035373.5	6856633.2
10..14	23632648.0	395276259.8	60.. 64	930400.2	5926233.0
11..15	22496707.8	372779552.0	61.. 65	830267.9	5095965.1
12..16	21393914.4	351385637.6	62.. 66	738138.4	4357826.7
13..17	20330911.3	331054726.3	63.. 67	654161.3	3703665.4
14..18	19313180.4	311741545.9	64.. 68	578089.7	3125575.7
15..19	18339186.4	293402359.5	65.. 69	508956.0	2616619.7
16..20	17401801.6	276000557.9	66.. 70	446228.1	2170391.6
17..21	16502904.9	259497653.0	67.. 71	389612.0	1780779.6
18..22	15649008.9	243848644.1	68.. 72	336930.1	1443849.5
19..23	14837849.7	229010794.4	69.. 73	287876.2	1155973.3
20..24	14067347.1	214943447.3	70.. 74	242649.2	913324.1
21..25	13335519.7	201607927.6	71.. 75	201315.6	712008.5
22..26	12640418.9	188967508.7	72.. 76	164778.8	547229.7
23..27	11980313.3	176987195.4	73.. 77	132443.3	414786.4
24..28	11349541.6	165637653.8	74.. 78	104788.6	309997.8
25..29	10741354.7	154896299.1	75.. 79	81697.1	228300.72
26..30	10151920.0	144744379.1	76.. 80	62638.08	165662.64
27..31	9591647.1	135152732.0	77.. 81	47450.89	118211.75
28..32	9057700.1	126095031.9	78.. 82	35274.84	82936.91
29..33	8546107.3	117548924.6	79.. 83	25974.46	56962.446
30..34	8054867.2	109494057.4	80.. 84	18695.971	38266.475
31..35	7588974.8	101905082.6	81.. 85	13281.636	24984.839
32..36	7148532.6	94756550.0	82.. 86	9122.983	15861.856
33..37	6732162.0	88024388.0	83.. 87	6079.659	9782.197
34..38	6338607.8	81685780.2	84.. 88	3890.539	5891.658
35..39	5965565.2	75720215.0	85.. 89	2455.112	3436.546
36..40	5609853.9	70110361.1	86.. 90	1527.404	1909.142
37..41	5267761.7	64842599.4	87.. 91	875.884	1033.2584
38..42	4941156.9	59901442.5	88.. 92	471.5003	561.7581
39..43	4630535.2	55270907.3	89.. 93	254.6665	307.0916
40..44	4335401.9	50935505.4	90.. 94	142.3032	164.7884
41..45	4053557.8	46881947.6	91.. 95	75.8828	88.90560
42..46	3787037.3	43094910.3	92.. 96	39.95661	48.94899
43..47	3535869.6	39559040.7	93.. 97	21.64873	27.30026
44..48	3301371.9	36257668.8	94.. 98	11.99280	15.30746
45..49	3083841.5	33173827.3	95.. 99	6.79537	8.512093
46..50	2881348.2	30292479.1	96..100	4.098608	4.413485
47..51	2692853.0	27599626.1	97..101	2.398851	2.014634
48..52	2515003.3	25084522.8	98..102	1.281438	.733196
49..53	2348325.6	22736297.2	99..103	.580870	.1523261

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	55866386.	681659194.9	50 & 55	2071272.3	19016722.2
1.. 6	44641418.8	637017776.1	51.. 56	1929667.7	17087054.5
2.. 7	38979775.9	598038000.2	52.. 57	1794181.4	15292873.1
3.. 8	34739104.9	563298895.3	53.. 58	1663446.7	13629426.4
4.. 9	31924146.0	531374749.3	54.. 59	1535547.9	12093878.5
5..10	29663090.4	501711658.9	55.. 60	1410500.5	10683378.0
6..11	27888689.3	473822969.6	56.. 61	1287337.2	9396040.8
7..12	26358994.9	447463974.7	57.. 62	1170851.1	8225189.7
8..13	24996643.1	422467331.6	58.. 63	1061057.7	7164132.0
9..14	23753372.0	398713959.6	59.. 64	957471.9	6206660.1
10..15	22598154.6	376115805.0	60.. 65	859036.0	5347624.1
11..16	21497541.2	354618263.8	61.. 66	765533.2	4582090.9
12..17	20433076.7	334185187.1	62.. 67	679583.0	3902507.9
13..18	19413785.8	314771401.3	63.. 68	601080.9	3301427.0
14..19	18441070.8	296330330.5	64.. 69	530036.0	2771391.0
15..20	17510198.1	278820132.4	65.. 70	465347.7	2306043.3
16..21	16614357.2	262205775.2	66.. 71	406906.2	1899137.1
17..22	15757964.1	246447811.1	67.. 72	352580.5	1546356.6
18..23	14941881.6	231505929.5	68.. 73	301899.4	1244657.2
19..24	14166673.2	217339256.3	69.. 74	255180.8	989476.4
20..25	13430348.0	203908908.3	70.. 75	212278.8	777197.6
21..26	12728828.2	191180080.1	71.. 76	175082.1	602115.5
22..27	12064695.8	179115384.3	72.. 77	142126.3	459989.2
23..28	11430048.4	167685335.9	73.. 78	113668.1	346321.1
24..29	10818091.7	156867244.2	74.. 79	89793.7	256527.38
25..30	10226719.9	146640524.3	75.. 80	69253.33	187274.05
26..31	9662843.5	136977680.8	76.. 81	52597.80	134376.25
27..32	9128611.1	127849069.7	77.. 82	39520.61	94855.64
28..33	8621099.2	119227970.5	78.. 83	29146.18	65709.46
29..34	8134816.2	111093154.3	79.. 84	21207.08	44502.375
30..35	7666427.0	103426727.3	80.. 85	15122.341	29380.034
31..36	7222242.1	96204485.2	81.. 86	10532.326	18847.708
32..37	6801058.4	89403426.8	82.. 87	7075.044	11772.664
33..38	6402965.2	83000461.6	83.. 88	4581.864	7190.800
34..39	6026756.2	76973705.4	84.. 89	2918.549	4272.251
35..40	5667992.6	71305712.8	85.. 90	1852.030	2420.221
36..41	5323940.4	65981772.4	86.. 91	1085.978	1334.2434
37..42	4995382.1	60986390.3	87.. 92	601.5693	732.6741
38..43	4682827.0	56303563.3	88.. 93	326.4233	406.2508
39..44	4387512.2	51916051.1	89.. 94	181.3664	224.8644
40..45	4106968.6	47809082.5	90.. 95	102.6224	122.2420
41..46	3839933.1	43969149.4	91.. 96	55.9393	66.30270
42..47	3587429.8	40381719.6	92.. 97	30.06767	36.23503
43..48	3350224.9	37031494.7	93.. 98	16.19029	20.04474
44..49	3130161.1	33901333.6	94.. 99	9.06050	10.98423
45..50	2924658.1	30976675.5	95..100	5.346011	5.63822
46..51	2733351.4	28243324.1	96..101	3.065199	2.57302
47..52	2552275.0	25691049.1	97..102	1.647563	.92546
48..53	2381511.9	23309537.2	98..103	.739289	.18617
49..54	2221512.7	21087994.5			

TABLE XXIX. 665

Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Six Years.

D.	N.	Ages.	D.	N.
1398.	649562387.2	49 & 55	2100007.3	19511844.9
7208.3	607165178.9	50.. 56	1955912.6	17555932.3
0879.4	57C014299.5	51.. 57	1820196.1	15735736.2
3229.3	536831070.2	52.. 58	1669123.3	14046612.9
0263.4	506290766.8	53.. 59	1560751.1	12485861.8
4161.3	477896625.5	54.. 60	1434741.8	11051120.0
6783.4	451209842.1	55.. 61	1310831.1	9740288.9
8461.4	425991380.7	56.. 62	1193528.2 ·	8546760.7
0679.0	402080701.7	57.. 63	1083703.9	7463056.8
3594.1	379367107.6	58.. 64	981223.7	6481833.1
4482.2	357772625.4	59.. 65	884031.3	5597801.8
2049.4	337240576.0	60.. 66	792058.3	4805743.5
1342.5	317729233.5	61.. 67	704804.7	4100938.8
7133.1	299192100.4	62.. 68	624439.8	3476499.0
7477.0	281584623.4	63.. 69	551116.0	2925383.0
7848.6	264866774.8	64.. 70	484621.6	2440761.4
4385.4	249002389.4	65.. 71	424341.1	2016420.3
5913.5	233956475.9	66.. 72	368230.8	1648189.5
5999.2	219690476.7	67.. 73	315922.6	1332266.9
5176.4	206165300.3	68.. 74	267611.4	1064655.5
9342.4	193345957.9	69.. 75	223242.0	841413.5
9078.3	181196879.6	70.. 76	184616.7	656796.8
0555.1	169686324.5	71.. 77	151013.4	505783.4
4828.7	158791495.8	72.. 78	121978.2	383805.2
9780.4	148491715.4	73.. 79	97402.5	286402.73
4039.9	138757675.5	74.. 80	76116.64	210286.09
5370.5	129561305.0	75.. 81	58484.36	151801.73
9592.2	120872712.8	76.. 82	44057.20	107744.53
3199.3	112666513.5	77.. 83	32654.29	75090.24
2520.6	104923992.9	78.. 84	23796.65	51293.59
9951.7	97628041.2	79.. 85	17153.46	34140.133
1185.1	90756856.1	80.. 86	11992.003	22148.130
4492.7	84288363.4	81.. 87	8168.016	13980.114
7947.2	78200416.2	82.. 88	5332.024	8648.090
5131.2	72474285.0	83.. 89	3437.157	5210.933
1116.0	67095169.0	84.. 90	2201.625	3009.308
6656.0	62046513.0	85.. 91	1316.786	1692.5215
1217.4	57312295.6	86.. 92	745.8647	946.6568
7059.7	52875235.9	87.. 93	416.4711	530.1857
5333.1	48718902.8	88.. 94	232.4953	297.6904
5529.1	44828373.7	89.. 95	130.8075	166.8829
7537.7	41190836.0	90.. 96	75.6512	91.2317
0078.2	37791757.8	91.. 97	42.0947	49.13697
4480.7	34615277.1	92.. 98	22.48651	26.65046
5586.7	31646690.4	93.. 99	12.23167	14.418785
4436.7	28872253.7	94..100	7.128014	7.290771
6659.1	26281394.6	95..101	3.998085	3.292686
805.2	23864789.4	96..102	2.105219	1.187467
937.2	21611852.2	97..103	.950515	.236952

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4 per Cent.)

Difference of Age Five Years.

Ages	D.	N.	Ages.	D.	N.
0 & 5	55366386.	681659194.9	50 & 55	2071272.3	19016722.2
1.. 6	44454415.8	637017776.1	51.. 56	1929667.7	17087054.5
2.. 7	38979775.9	598630400.2	52.. 57	1794181.4	15292873.1
3.. 8	34759104.9	563298895.3	53.. 58	1663446.7	13629426.4
4.. 9	31924146.0	531374749.3	54.. 59	1535547.9	12093878.5
5.. 10	23063090.4	501711635.9	55.. 60	1410500.5	10683378.0
6..11	27888689.3	473523969.6	56.. 61	1257337.2	
7..12	26358994.9	447463974.7	57.. 62	1170851.1	8225189.7
8..13	24956643.1	422467331.6	58.. 63	1061057.7	7164132.0
9..14	23753372.0	396713959.6	59.. 64	937471.9	6206660.1
10..15	22593154.6	376115805.0	60.. 65	859036.0	5347624.1
11..16	21407341.2	354618263.8	61.. 66	765533.2	4582090.9
12..17	20433076.7	334185157.1	62.. 67	679583.0	3902507.9
13..18	19413785.8	314771401.3	63.. 68	601080.9	3301427.0
14..19	18441070.8	296330330.5	64.. 69	530036.0	2771391.0
15..20	17510198.1	278820132.4	65.. 70	465347.7	2306043.3
16..21	16614357.2	262205775.2	66.. 71	406906.2	1899137.1
17..22	15757964.1	246447811.1	67.. 72	352580.5	1546556.6
18..23	14941881.6	231505929.5	68.. 73	301899.4	1244657.2
19..24	14166673.2	217339256.3	69.. 74	255180.8	989476.4
20..25	13430348.0	203908908.3	70.. 75	212278.9	777197.6
21..26	12728828.2	191180080.1	71.. 76	175082.1	602115.5
22..27	12061695.8	179113384.3	72.. 77	142126.3	459989.2
23..28	11430048.4	167683335.9	73.. 78	113669.1	346321.1
24..29	10918091.7	156867244.2	74.. 79	89793.7	256527.39
25..30	10226719.9	146640524.3	75.. 80	69253.33	187274.05
26..31	9662843.5	136977680.8	76.. 81	52897.80	134376.25
27..32	9128611.1	127849069.7	77.. 82	39520.61	94855.64
28..33	8621099.2	119227970.5	78.. 83	29146.18	65709.46
29..34	8134816.2	111093154.3	79.. 84	21207.08	44502.375
30..35	7666427.0	104426727.3	80.. 85	15122.341	29380.034
31..36	7222242.1	96204485.2	81.. 86	10532.326	18847.708
32..37	6801058.4	89401426.8	82.. 87	7075.044	11772.664
33..38	6402065.2	83000461.6	83.. 88	4581.864	
34..39	6026756.2	76973705.4	84 . 89	2913.349	4272.251
35..40	5667992.6	71305712.8	85.. 90	1852.036	
36..41	5323940.4	65981772.4	86.. 91	1085.978	1334.2434
37..42	4993852.1	60984390.3	87.. 92	601.5693	732.6744
38..43	4682827.0	56303563.3	88.. 93	326.4253	406.2508
39..44	4387512.2	51916051.1	89.. 94	191.3564	214.8644
40..45	4106968.6	47809082.5	90.. 95	102.622	122.343
41..46	3839933.1	43969149.4	91.. 96	55.939	66.30
42..47	3587429.8	40158719.6	92.. 97	30.067	36.233
43..48	3350224.9	37031494.7	93.. 98	16.190	20.046
44..49	3130161.1	33901333.6	94.. 99	9.060	9.984
45..50	2924658.1	30976675.5	95..100	5.3460	6.395
46..51	2733351.4	28243324.1	96..101	3.0651	.073
47..52	2552275.0	25691049.1	97..102	1.647	.925
48..53	2381511.9	23309537.2	98..103		.161
49..54	2221512.7	21087994.5			

TABLE XXIX. 565

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 6	42761398.	649562387.2	49 & 55	2100007.3	19511844.9
1.. 7	42397208.3	607165178.9	50.. 56	1955912.6	17555932.3
2.. 8	37150679.4	570014299.5	51.. 57	1820196.1	15735736.2
3.. 9	33183229.3	536831070.2	52.. 58	1689123.3	14046612.9
4..10	30540283.4	506290766.8	53.. 59	1560751.1	12485861.8
5 .11	28394161.3	477896625.5	54.. 60	1434741.8	11051120.0
6..12	26686783.4	451209842.1	55.. 61	1310831.1	9740288.9
7..13	25218461.4	425991380.7	56.. 62	1193528.2	8546760.7
8. 14	23910679.0	402080701.7	57.. 63	1083703.9	7463056.8
9..15	22713594.1	379367107.6	58.. 64	981223.7	6481833.1
10..16	21594482.2	357772625.4	59.. 65	884031.3	5597801.8
11..17	20532049.4	337240576.0	60.. 66	792058.3	4805743.5
12..18	19511342.5	317729233.5	61.. 67	704804.7	4100938.8
13. 19	18537133.1	299192100.4	62.. 68	624439.8	3476499.0
14..20	17607477.0	281584623.4	63.. 69	551116.0	2925383.0
15..21	16717848.6	264866774.8	64.. 70	484621.6	2440761.4
16..22	15864385.4	249002389.4	65.. 71	424341.1	2016420.3
17..23	15045913.5	243956475.9	66.. 72	368230.8	1648189.5
18..24	14265999.2	219690476.7	67.. 73	315922.6	1332266.9
19..25	13525176.4	206165300.3	68.. 74	267611.4	1064655.5
20..26	12819342.4	193345957.9	69.. 75	223242.0	841413.5
21..27	12149078.3	181196879.6	70.. 76	184616.7	656796.8
22..28	11510555.1	169686324.5	71.. 77	151013.4	505783.4
23..29	10894828.7	158791495.8	72.. 78	121978.2	363805.2
24..30	10299780.4	148491715.4	73.. 79	97402.5	286402.73
25..31	9734039.9	138757675.5	74.. 80	76116.64	210286.09
26..32	9196370.5	129561305.0	75.. 81	58484.36	151801.73
27..33	8688592.2	120872712.8	76.. 82	44057.20	107744.53
28..34	8206199.3	112666513.5	77.. 83	32654.29	75090.24
29..35	7742520.6	104923992.9	78.. 84	23796.65	51293.59
30..36	7295951.7	97628041.2	79.. 85	17153.46	34140.133
31..37	6871185.1	90756856.1	80.. 86	11992.003	22148.130
32..38	6468492.7	84288363.4	81.. 87	8168.016	13980.114
33..39	6087947.2	78200416.2	82.. 88	5332.024	8648.090
34..40	5726131.2	72474285.0	83.. 89	3437.157	5210.933
35..41	5379116.0	67095169.0	84.. 90	2201.625	3009.309
36..42	5048656.8	62046513.0	85.. 91	1316.786	1692.5215
37..43	4734217.4	57312295.6	86.. 92	745.8647	946.6568
38..44	4437059.7	52875235.9	87.. 93	416.4711	530.1857
39..45	4204233.1	48718902.8	88.. 94	232.4963	297.6904
40..46		44828373.7	89.. 95	130.8075	166.8829
41..47		41190836.0	90.. 96	75.6512	91.2317
42..48		37791757.8	91.. 97	43.0942	48.1369
43..49		34615277.1	92.. 98	22.44	25.5046
44..50		31646690.4	93.. 99	12.4	13.418785
45..51		28872253.7	94..100		5.290771
46..52		26281594.0	95..101		3.292686
47..53		23864769.4	96..102		1.187467
48..54		21611862.2	97..103		.236952

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	55866386.	681659194.9	50 & 55	2071272.3	19016722.2
1.. 6	44641418.8	637017776.1	51.. 56	1929667.7	17087054.5
2.. 7	38979775.9	598038000.2	52.. 57	1794181.4	15292873.1
3.. 8	34739104.9	563298895.3	53.. 58	1663446.7	13629426.4
4.. 9	31924146.0	531374749.3	54.. 59	1535547.9	12093878.5
5..10	29663090.4	501711658.9	55.. 60	1410500.5	10683378.0
6..11	27888689.3	473822969.6	56.. 61	1287337.2	9396040.8
7..12	26358994.9	447463974.7	57.. 62	1170851.1	8225189.7
8..13	24996643.1	422467331.6	58.. 63	1061057.7	7164132.0
9..14	23753372.0	398713959.6	59.. 64	957471.9	6206660.1
10..15	22598154.6	376115805.0	60.. 65	859036.0	5347624.1
11..16	21497541.2	354618263.8	61.. 66	765533.2	4582090.9
12..17	20433076.7	334185187.1	62.. 67	679583.0	3902507.9
13..18	19413785.8	314771401.3	63.. 68	601080.9	3301427.0
14..19	18441070.8	296330330.5	64.. 69	530036.0	2771391.0
15..20	17510198.1	278820132.4	65.. 70	465347.7	2306043.3
16..21	16614357.2	262205775.2	66.. 71	406906.2	1899137.1
17..22	15757964.1	246447811.1	67.. 72	352580.5	1546556.6
18..23	14941881.6	231505929.5	68.. 73	301899.4	1244657.2
19..24	14166673.2	217339256.3	69.. 74	255180.8	989476.4
20..25	13430348.0	203908908.3	70.. 75	212278.8	777197.6
21..26	12728828.2	191180080.1	71.. 76	175082.1	602115.5
22..27	12064695.8	179115384.3	72.. 77	142126.3	459989.2
23..28	11430048.4	167685335.9	73.. 78	113668.1	346321.1
24..29	10818091.7	156867244.2	74.. 79	89793.7	256527.38
25..30	10226719.9	146640524.3	75.. 80	69253.33	187274.05
26..31	9662843.5	136977680.8	76.. 81	52597.80	134376.25
27..32	9128611.1	127849069.7	77.. 82	39520.61	94855.64
28..33	8621099.2	119227970.5	78.. 83	29146.18	65709.46
29..34	8134816.2	111093154.3	79.. 84	21207.08	44502.375
30..35	7666427.0	103426727.3	80.. 85	15122.341	29380.034
31..36	7222242.1	96204485.2	81.. 86	10532.326	18847.708
32..37	6801058.4	89403426.8	82.. 87	7075.044	11772.664
33..38	6402965.2	83000461.6	83.. 88	4581.864	7190.800
34..39	6026756.2	76973705.4	84.. 89	2918.549	4272.251
35..40	5667992.6	71305712.8	85.. 90	1852.030	2420.221
36..41	5323940.4	65981772.4	86.. 91	1085.978	1334.2434
37..42	4995382.1	60986390.3	87.. 92	601.5693	732.6741
38..43	4682827.0	56303563.3	88.. 93	326.4233	406.2508
39..44	4387512.2	51916051.1	89.. 94	181.3864	224.8644
40..45	4106968.6	47809082.5	90.. 95	102.6224	122.2420
41..46	3839933.1	43969149.4	91.. 96	55.9393	66.30270
42..47	3587429.8	40381719.6	92.. 97	30.06767	36.23503
43..48	3350224.9	37031494.7	93.. 98	16.19029	20.04474
44..49	3130161.1	33901333.6	94.. 99	9.06050	10.98423
45..50	2924658.1	30976675.5	95..100	5.346011	5.63822
46..51	2733331.4	28243324.1	96..101	3.065199	2.573021
47..52	2552275.0	25691049.1	97..102	1.647563	.925461
48..53	2381511.9	23309537.2	98..103	.739269	.186171
49..54	2221512.7	21087994.5			

TABLE XXIX. 665

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Six Years.

Ages	D.	N.	Ages	D.	N.
0 & 6	52761398.	649562387.2	49 & 55	2100007.3	19511844.9
1.. 7	42397208.3	607165178.9	50.. 56	1955912.6	17555932.3
2.. 8	37150879.4	570014199.5	51.. 57	1820196.1	15735736.2
3.. 9	33183229.3	536831070.2	52.. 58	1689123.3	14046612.9
4..10	30540283.4	506290766.8	53.. 59	1560751.1	12485861.8
5..11	28394161.3	477896625.5	54.. ■	1434741.8	11051120.0
6..12	26686783.4	451209842.1	55.. 61	1310831.1	9740288.9
7..13	25218461.4	425991380.7	56.. 62	1193528.2	8546760.7
8..14	23910679.0	402080701.7	57.. 63	1083703.9	7463056.8
9..15	22713594.1	379367107.6	58.. 64	981223.7	6481833.1
10..16	21594482.3	357772625.4	59.. 65	884031.3	5597801.8
11..17	20532049.4	337240576.0	60.. 66	792058.3	4805743.5
12..18	19511342.5	317729233.5	61.. 67	704804.7	4100938.8
13..19	18537133.1	299192100.4	62.. 68	624439.8	3476499.0
14..20	17607477.0	281584623.4	63.. 69	551116.0	2925383.0
15..21	16717848.6	264866774.8	64.. 70	484621.6	2440761.4
16..22	15864385.4	249002389.4	65.. 71	424341.1	2016420.3
17..23	15045913.5	233956475.9	66.. 72	368230.8	1648189.5
18..24	14265999.2	219690476.7	67.. 73	315922.6	1332266.9
19..25	13525176.4	206165300.3	68.. 74	267611.4	1064655.5
20..26	12819342.4	193345957.9	69.. 75	223242.0	841413.5
21..27	12149078.3	181196879.6	70.. 76	184616.7	656796.8
22..28	11510555.1	169686324.5	71.. 77	151013.4	505783.4
23..29	10894828.7	158791495.8	72.. 78	121978.2	383805.2
24..30	10299780.4	148491715.4	73.. 79	97402.5	286402.73
25..31	9734039.9	138757675.5	74.. ■	76116.64	210286.09
26..32	9196370.5	129561305.0	75.. 81	58484.36	151601.73
27..33	8668592.2	120872712.8	76.. 82	44057.20	107744.53
28..34	8206199.3	112666513.5	77.. ■	32654.29	75090.24
29..35	7742520.6	104923992.9	78.. ■	23796.65	51293.59
30..36	7295951.7	97628041.2	79.. ■	17153.46	34140.133
31..37	6871185.1	90756856.1	80.. 86	11992.003	22148.130
32..38	6468492.7	84288363.4	81.. 87	8168.016	13980.114
33..39	6087947.2	78200416.2	82.. 88	5332.024	8648.090
34..40	5726131.2	72474285.0	83.. 89	3437.157	5210.933
35..41	5379116.0	67095169.0	84.. 90	2201.625	3009.300
36..42	5048656.0	62046513.0	85.. 91	1315.786	1692.5215
37..43	4734217.4	57312295.6	86.. 92	745.8647	946.6568
38..44	4437059.7	52875235.9	87.. 93	416.4711	530.1857
39..45	4156333.1	48718902.8	■.. 94	292.6963	297.6904
40..46	3890529.1	44828373.7	89.. 95	130.8075	166.8829
41..47	3637537.7	41190836.0	90.. 96	75.6512	91.2317
42..48	3399078.2	37791757.8	91.. 97	42.0947	49.13697
43..49	3176480.7	34615277.1	92.. 98	22.48551	26.65046
44..50	2968586.7	31646690.4	93.. 99	12.23167	14.418785
45..51	2774436.7	28872253.7	94..100	7.128014	7.290771
46..52	2590659.1	26281594.6	95..101	3.998085	■.■■■■■
47..53	2416805.2	23864789.4	■..102	2.105219	1.187467
48..54	2252937.2	21611852.2	97..103	.950515	.236952

TABLE XXIX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	50108980.	619114273.2	49 & 56	1983047.1	18006302.2
1.. 8	40407969.0	578706304.2	50.. 57	1844952.1	16161350.1
2.. 9	35486986.6	543219317.6	51.. 58	1713614.8	14447735.3
3..10	31744787.4	511474530.2	52.. 59	1584842.4	12862892.9
4..11	29233829.7	482240700.5	53.. 60	1458290.6	11404602.3
5..12	27170471.3	455070229.2	54.. 61	1333359.5	10071242.8
6..13	25532066.9	429538162.3	55.. 62	1215310.0	8855932.8
7..14	24122860.7	405415301.6	56.. 63	1104693.1	7751239.7
8..15	22864015.3	332551286.3	57.. 64	1002166.0	6749073.7
9..16	21704794.7	360846491.6	58.. 65	905961.1	5843112.6
10..17	20624636.8	340221854.8	59.. 66	815104.8	5028007.8
11..18	19605850.5	320616004.3	60.. 67	729225.6	4298782.2
12..19	18630284.6	301985719.7	61.. 68	647614.9	3651167.3
13..20	17699197.0	284286522.7	62.. 69	572533.4	3078633.9
14..21	16810725.5	267475797.2	63.. 70	503895.4	2574738.5
15..22	15963205.3	251512591.9	64.. 71	441916.5	2132822.0
16..23	15147526.0	236365065.9	65.. 72	384008.7	1748813.3
17..24	14365325.4	221999740.5	66.. 73	329945.9	1418867.4
18..25	13620004.9	208379735.6	67.. 74	280042.0	1138825.4
19..26	12909856.7	195469878.9	68.. 75	234116.7	904708.7
20..27	12235470.0	183234408.9	69.. 76	194151.3	710557.4
21..28	11591061.9	171643347.0	70.. 77	159237.2	551320.2
22..29	10971565.8	160671781.2	71.. 78	129605.4	421714.8
23..30	10372840.8	150298940.4	72.. 79	104523.6	317191.25
24..31	9803580.6	140495359.8	73.. 80	82566.50	234624.75
25..32	9264129.9	131231229.9	74.. 81	64280.43	170344.32
26..33	8753085.5	122478144.4	75.. 82	48710.09	121634.23
27..34	8270444.0	114207700.4	76.. 83	36402.69	85231.54
28..35	7810461.3	106397239.1	77.. 84	26660.88	58570.66
29..36	7368368.1	99028871.0	78.. 85	19248.05	39322.61
30..37	6941311.7	92087559.3	79.. 86	13602.67	25719.941
31..38	6535190.2	85552369.1	80.. 87	9300.024	16419.917
32..39	6150250.8	79402118.3	81.. 88	6155.730	10264.187
33..40	5784269.8	73617848.5	82.. 89	3999.902	6264.285
34..41	5434291.5	68183557.0	83.. 90	2592.841	3671.444
35..42	5100978.6	63082578.4	84.. 91	1565.348	2106.0962
36..43	4784706.1	58297872.3	85.. 92	904.3864	1201.7098
37..44	4485752.9	53812119.4	86.. 93	516.3679	685.3419
38..45	4203269.9	49608849.5	87.. 94	296.6319	388.7100
39..46	3937292.2	45671557.3	88.. 95	167.6649	221.0451
40..47	3685466.9	41986090.4	89.. 96	96.4287	124.6164
41..48	3446555.1	38539535.3	90.. 97	56.9281	67.6883
42..49	3222800.2	35316735.1	91.. 98	31.4811	36.20717
43..50	3012515.4	32304219.7	92.. 99	16.98843	19.218735
44..51	2816109.0	29488110.7	93..100	9.622819	9.595916
45..52	2629599.7	26858511.0	94..101	5.330780	4.265136
46..53	2453152.0	24405359.0	95..102	2.745938	1.519193
47..54	2286325.2	22119033.8	96..103	1.214546	.304652
48..55	2129684.5	19989349.3			

TABLE XXIX. 667

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Eight Years.

Ages	D.	N.	Ages	D.	N.
0 & 8	47757912.	590097630.2	48 & 56	2011071.3	18440359.7
1..9	38598199.5	551499430.7	49..57	1870547.4	16569812.3
2..10	33948680.3	517550750.4	50..58	1736921.3	14832891.0
3..11	30356807.3	487163943.1	51..59	1607922.0	13225069.0
4..12	27973953.0	459189990.1	52..60	1460800.4	11744268.6
5..13	25994826.1	433195164.0	53..61	1355244.1	10389024.5
6..14	24422841.7	406772322.3	54..62	1236196.8	9152827.7
7..15	23066908.9	385705413.4	55..63	1124853.7	8027974.0
8..16	21848535.1	363856878.3	56..64	1021575.9	7006398.1
9..17	20729994.8	343126883.5	57..65	925297.1	6081101.0
0..18	19694261.3	323432622.2	58..66		5245776.2
11..19	18720524.9	304712097.3	59..67	750443.8	4495332.4
12..20	17788137.7	286923959.6	60..68	670054.3	3825278.1
13..21	16896295.2	270025664.4	61..69	593782.0	3231496.1
14..22	16051889.8	253973774.6	62..70	523477.6	2708018.5
15..23	15241880.5	238731894.1	63..71	459492.0	2248526.5
16..24	14462341.7	224269552.4	64..72		1848612.9
17..25	13714833.2	210554719.2	65..73	344083.2	1504529.7
18..26	13000370.9	197554348.3	66..74	292472.5	1212057.2
19..27	12321861.7	185232486.6	67..75	244991.4	967065.8
20..28	11673485.5	173559001.1	68..76	203608.9	763456.9
21..29	11045302.8	162510698.3	69..77	167461.0	595995.9
22..30	10445901.3	152064797.0	70..78	136663.5	459332.4
23..31	9873121.3	142191675.7	71..79	111059.4	348273.01
24..32	9330313.5	132861362.2	72..80	86602.91	259670.10
25..33	8817578.7	124040703.3	73..81	69727.33	189942.77
26..34		115711950.0	74..82	53537.49	136405.28
27..35	7871607.9	107840342.1	75..83	40247.20	96158.08
28..36	7433025.6	100407316.5	76..84	29721.30	66436.78
29..37	7010208.0	93397108.5	77..85	21564.80	44871.99
30..38	6601887.7	86795220.8	78..86	15263.69	29608.29
31..39	6213665.9	80581553.9	79..87	10549.13	19059.157
32..40		74738089.3	80..88	7008.854	12050.303
33..41	5489467.1	69248621.2	81..89	4617.618	7432.485
34..42	5153301.2	64095320.0	82..90	3017.361	4415.134
35..43	4834293.2	59261026.8	83..91	1843.501	2571.6333
36..44	4533591.7	54727435.1	84..92	1075.1020	1496.5313
37..45	4249397.5	50478037.6	85..93	626.1137	870.4176
38..46	3981755.4	46496282.2	86..94	367.7834	502.6442
39..47	3729765.1	42766517.1	87..95	213.9173	288.7169
40..48	3491968.0	39274549.1	88..96	123.5891	165.1178
41..49	3267815.0	36006734.1	89..97		92.5545
42..50	3056444.0	32950290.1	90..98	42.5744	49.9801
43..51	2857781.3	30092508.8	91..99	23.7638	26.196298
44..52	2669096.5	27423412.3	92..100	13.365027	12.831271
45..53	2490025.7	24933386.6	93..101	7.196553	5.634718
46..54	2320709.8	22612676.8	94..102	3.661250	1.973468
47..55	2161245.8	20451431.0	95..103	1.584191	.389277

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4 per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	45618957.	562363087.9	48 & 57	1896981.8	16963212.6
1..10	36925026.9	525438061.0	49.. 58	1761017.8	15202194.8
2..11	32496422.2	492941638.8	50.. 59	1629689.5	13572505.3
3..12	29077241.2	463864397.6	51.. 60	1502271.3	12070234.0
4..13	26763541.6	437100856.0	52.. 61	1376163.5	10694070.5
5..14	24865496.5	412235359.5	53.. 62	1256486.8	9437583.7
6..15	23353758.5	388881601.0	54.. 63	1144185.8	8293397.9
7..16	22042417.4	366839183.6	55.. 64	1040219.6	7253178.3
8..17	20867279.5	345971904.1	56.. 65	943218.2	6309960.1
9..18	19794866.6	326177037.5	57.. 66	853153.2	5456806.9
10..19	18804943.5	307372094.0	58.. 67	769059.8	4687747.1
11..20	17874299.0	289497795.0	59.. 68	689550.8	3998196.3
12..21	16983211.3	272514583.7	60.. 69	614356.1	3383840.2
13..22	16135506.5	256379077.2	61.. 70	542905.7	2840934.5
14..23	15326557.6	241052519.6	62.. 71	477348.6	2363585.9
15..24	14552428.1	226500091.5	63.. 72	415818.5	1947767.4
16..25	13807456.3	212692635.2	64.. 73	358334.4	1589433.0
17..26	13090885.1	199601750.1	65.. 74	305004.3	1284128.7
18..27	12408253.3	187193496.8	66.. 75	255866.1	1028562.6
19..28	11755909.3	175437587.5	67.. 76	213066.6	815496.0
20..29	11126866.8	164310720.7	68.. 77	175618.5	639877.5
21..30	10518961.6	153791759.1	69.. 78	143721.5	496156.0
22..31	9942602.0	143849097.1	70.. 79	117107.4	379048.62
23..32	9396497.1	134452600.0	71.. 80	94143.17	284905.45
24..33	8880572.2	125572027.8	72.. 81	74825.07	210080.38
25..34	8393222.9	117178804.9	73.. 82	58074.07	152006.31
26..35	7930037.0	109248767.9	74.. 83	44235.88	107770.43
27..36	7491217.3	101757550.6	75.. 84	32860.18	74910.25
28..37	7071722.7	94685827.9	76.. 85	24040.23	50870.02
29..38	6667415.0	88018412.9	77.. 86	17100.87	33769.15
30..39	6277083.0	81741329.9	78.. 87	11837.29	21931.86
31..40	5903718.4	75837611.5	79.. 88	7950.23	13981.634
32..41	5545645.9	70291965.6	80.. 89	5257.801	8723.833
33..42	5205623.9	65086341.7	81.. 90	3483.480	5240.353
34..43	4883880.3	60202461.4	82.. 91	2145.326	3095.0266
35..44	4580576.4	55621885.0	83.. 92	1266.1410	1823.8856
36..45	4294715.9	51327169.1	84.. 93	744.3013	1084.5843
37..46	4025451.9	47301717.2	85.. 94	445.9500	633.6343
38..47	3771884.7	43529832.5	86.. 95	265.2284	373.4059
39..48	3533940.4	39995892.1	87.. 96	157.6954	215.7105
40..49	3310872.7	36685019.4	88.. 97	93.0094	122.7011
41..50	3099135.3	33585884.1	89.. 98	54.2674	68.4337
42..51	2899453.7	30686430.4	90.. 99	32.1647	36.2689
43..52	2708593.3	27977837.1	91..100	18.71104	17.5579
44..53	2527426.2	25450410.9	92..101	9.995213	7.5626
45..54	2355592.6	23094818.3	93..102	4.942688	2.6200
46..55	2193749.1	20901069.2	94..103	2.112254	.5077
47..56	2040874.8	18860194.4			

TABLE XXIX. **673**

tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fourteen Years.

D.	N.	Ages.	D.	N.
5583046.	440121018.7	45 & 59	1751999.6	15128449.7
)597985.5	410523033.2	46.. 60	1612742.6	13515707.1
5003634.3	384519398.9	47.. 61	1476575.7	12039131.4
3223468.8	361295930.1	48.. 62	1348985.2	10690146.2
1334433.5	339961496.6	49.. 63	1231180.5	9458965.7
)785944.3	320175552.3	50.. 64	1122967.2	8335998.5
5555251.2	301620301.1	51.. 65	1022920.1	7313078.4
7498014.9	284122286.2	52.. 66	929684.8	6383393.6
5561192.1	267561094.1	53.. 67	842923.3	5540470.3
)708814.2	251852279.9	54.. 68	762019.0	4778451.3
1922013.6	236930266.3	55.. 69	686871.3	4091580.0
1182359.3	222747907.0	56.. 70	616763.1	3474816.9
1471886.9	209276020.1	57.. 71	551727.9	2923089.0
1794002.1	196482018.0	58.. 72	488854.0	2434235.0
1143108.6	184338909.4	59.. 73	427424.7	2006810.3
510551.9	172828357.5	60.. 74	368167.9	1638642.4
891221.9	161937135.6	61.. 75	311300.8	1327341.6
296988.3	151640147.3	62.. 76	261047.0	1066294.6
732142.5	141908004.8	63.. 77	216737.7	849556.9
198538.9	132709465.9	64.. 78	178597.6	670659.3
694459.5	124015006.4	65.. 79	147201.1	523458.23
216746.6	115798259.8	66.. 80	119653.19	403805.04
765365.1	108032894.7	67.. 81	96752.35	307052.69
336235.6	100696659.1	68.. 82	77005.57	230047.12
928354.6	93768304.5	69.. 83	60671.15	169375.97
540760.5	87227544.0	70.. 84	47102.87	122273.10
169042.3	81058501.7	71.. 85	36131.77	86141.33
811491.8	75247009.9	72.. 86	26966.28	59175.05
468188.3	69778821.6	73.. 87	19488.08	39686.97
137225.4	64641596.2	74.. 88	13539.66	26147.31
819771.0	59821625.2	75.. 89	9241.16	16906.15
519688.7	55302136.5	76.. 90	6305.22	10600.93
237802.0	51064334.5	77.. 91	4021.37	6579.564
973768.4	47090566.1	78.. 92	2465.215	4114.349
727288.7	43363277.4	79.. 93	1520.964	2593.3850
498108.3	39865169.1	80.. 94	955.0344	1638.3506
263511.9	36581657.2	81.. 95	604.8943	1033.4563
081990.2	33499667.0	82.. 96	386.2473	647.2090
889388.9	30610278.1	83.. 97	249.7621	397.4469
705473.4	27904804.7	84.. 98	158.6049	238.8420
529010.5	25375794.2	85.. 99	100.7981	138.04388
359564.1	23016230.1	86..100	65.39953	72.64435
197454.6	20818775.5	87..101	39.44778	33.19657
)43000.2	18775775.3	88..102	21.23525	11.96132
395326.0	16880449.3	89..103	9.55796	2.40336

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 3	64665595.	752450420.2	51 & 54	2161743.4	19980911.9
1.. 4	50613022.7	701837397.5	52.. 55	2014273.5	17966638.4
2.. 5	43458461.4	658378936.1	53.. 56	1873174.4	16093464.0
3.. 6	38378640.9	620000295.2	54.. 57	1738375.4	14355088.6
4.. 7	35066264.4	584934030.8	55.. 58	1608933.5	12746155.1
5.. 8	32461052.4	552472978.4	56.. 59	1482546.8	11263608.3
6.. 9	30455215.7	522017762.7	57.. 60	1358900.9	9904707.4
7..10	28777169.1	493240593.6	58.. 61	1236487.4	8668220.0
8..11	27303845.6	465936748.0	59.. 62	1118634.3	7549585.7
9..12	25955255.4	439981492.6	60.. 63	1006099.1	6543486.6
10..13	24705984.4	415275508.2	61.. 64	899242.2	5644244.4
11..14	23526557.1	391748951.1	62.. 65	800556.5	4843687.9
12..15	22388264.6	369360686.5	63.. 66	710526.1	4133161.8
13..16	21286944.7	348073741.8	64.. 67	629139.8	3504022.0
14..17	20225553.3	327848188.5	65.. 68	555098.5	2948923.5
15..18	19206477.8	308641710.7	66.. 69	488044.6	2460878.9
16..19	18225658.1	290416052.6	67.. 70	427262.7	2033616.2
17..20	17285066.9	273130985.7	68.. 71	372317.8	1661298.4
18..21	16388798.8	256742186.9	69.. 72	321279.6	1340018.8
19..22	15540053.7	241202133.2	70.. 73	273738.8	1066280.0
20..23	14733817.8	226468315.4	71.. 74	230117.4	836162.6
21..24	13968021.1	212500294.3	72.. 75	189468.3	646694.3
22..25	13242896.6	199257397.7	73.. 76	153552.4	493141.9
23..26	12552009.7	186705388.0	74.. 77	122097.2	371044.7
24..27	11895930.8	174809457.2	75.. 78	95339.9	275704.8
25..28	11269034.7	163540422.5	76.. 79	73893.2	201811.64
26..29	10662790.6	152877631.9	77.. 80	56188.22	145623.42
27..30	10077120.0	142800511.9	78.. 81	42353.16	103270.26
28..31	9517139.2	133283372.7	79.. 82	31436.19	71834.067
29..32	8978910.0	124304462.7	80.. 83	22898.857	48935.210
30..33	8462115.9	115842346.8	81.. 84	16420.280	32514.930
31..34	7973490.4	107868856.4	82.. 85	11504.405	21010.525
32..35	7511522.4	100357334.0	83.. 86	7839.473	13171.052
33..36	7076116.3	93281217.7	84.. 87	5162.343	8008.709
34..37	6664495.8	86616721.9	85.. 88	3272.760	4735.949
35..38	6274250.6	80342471.3	86.. 89	2024.778	2711.171
36..39	5904374.2	74438097.1	87.. 90	1231.912	1479.259
37..40	5550658.2	68887438.9	88.. 91	686.504	792.7545
38..41	5210579.8	63676859.1	89.. 92	367.8515	424.9030
39..42	4885980.3	58790878.8	90.. 93	199.7936	225.1094
40..43	4575538.5	54215340.3	91.. 94	105.2242	119.88521
41..44	4279020.4	49936319.9	92.. 95	54.20201	65.68320
42..45	3997719.3	45938600.6	93.. 96	28.76876	36.91444
43..46	3732608.2	42205992.4	94.. 97	16.03609	20.87835
44..47	3484309.3	38721683.1	95.. 98	8.99460	11.88375
45..48	3252518.7	35469164.4	96.. 99	5.20979	6.673957
46..49	3038174.2	32430990.2	97..100	3.207607	3.466350
47..50	2838657.0	29592333.2	98..101	1.865773	1.600577
48..51	2653528.4	26938804.8	99..102	1.006844	.593733
49..52	2479956.7	24458848.1	100..103	.4752572	.118475
50..53	2316192.8	22142655.3			

TABLE XXIX. 663

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Four Years.

Ages	D.	N.	Ages	D.	N.
0 & 4	59819197.	715738514.9	50 & 54	2191144.7	20545152.5
1..5	47268548.9	668469966.0	51..55	2043479.6	18501672.9
2..6	41043091.5	627426874.5	52..56	1902088.2	16599584.7
3..7	36449272.4	590977602.1	53..57	1766907.8	14832676.9
4..8	33420986.4	557556615.7	54..58	1636585.2	13196091.7
5..9	31007205.1	526549410.6	55..59	1509603.2	11686488.5
6..10	29135028.9	497414381.7	56..60	1385220.2	10301268.3
7..11	27546138.0	469868243.7	57..61	1262877.7	9038390.6
8..12	26127144.4	443741099.3	58..62	1146383.9	7892006.7
9..13	24832191.5	418908907.8	59..63	1035373.5	6856633.2
10..14	23632648.0	395276259.8	60..64	930400.2	5926233.0
11..15	22496707.8	372779552.0	61..65	830267.9	5095965.1
12..16	21393914.4	351385637.6	62..66	738138.4	4357826.7
13..17	20330911.3	331054726.3	63..67	654161.3	3703665.4
14..18	19313180.4	311741545.9	64..68	578089.7	3125575.7
15..19	18339186.4	293402359.5	65..69	508956.0	2616619.7
16..20	17401801.6	276000557.9	66..70	446228.1	2170391.6
17..21	16502904.9	259497653.0	67..71	389612.0	1780779.6
18..22	15649008.9	243848644.1	68..72	336930.1	1443849.5
19..23	14837849.7	229010794.4	69..73	287876.2	1155973.3
20..24	14067347.1	214943447.3	70..74	242649.2	913324.1
21..25	13335519.7	201607927.6	71..75	201315.6	712008.5
22..26	12640418.9	188967508.7	72..76	164778.8	547229.7
23..27	11980313.3	176987195.4	73..77	132443.3	414786.4
24..28	11349541.6	165637653.8	74..78	104788.6	309997.8
25..29	10741354.7	154896299.1	75..79	81697.1	228300.72
26..30	10151920.0	144744379.1	76..80	62638.08	165662.64
27..31	9591647.1	135152732.0	77..81	47450.89	118211.75
28..32	9057700.1	126095031.9	78..82	35274.84	82936.91
29..33	8546107.3	117548924.6	79..83	25974.46	56962.446
30..34	8054867.2	109494057.4	80..84	18695.971	38266.475
31..35	7588974.8	101905082.6	81..85	13281.636	24984.839
32..36	7148532.6	94756550.0	82..86	9122.983	15861.856
33..37	6732162.0	88024388.0	83..87	6079.659	9782.197
34..38	6338607.8	81685780.2	84..88	3890.539	5891.658
35..39	5965565.2	75720215.0	85..89	2455.112	3436.546
36..40	5609853.9	70110361.1	86..90	1527.404	1909.142
37..41	5267761.7	64842599.4	87..91	875.884	1033.2584
38..42	4941156.9	59901442.5	88..92	471.5003	561.7581
39..43	4630535.2	55270907.3	89..93	254.6665	307.0916
40..44	4335401.9	50935505.4	90..94	142.3032	164.7884
41..45	4053557.8	46881947.6	91..95	75.8828	88.90560
42..46	3787037.3	43094910.3	92..96	39.95661	48.94899
43..47	3535869.6	39559040.7	93..97	21.64873	27.30026
44..48	3301371.9	36257668.8	94..98	11.99280	15.30746
45..49	3083841.5	33173827.3	95..99	6.79537	8.512093
46..50	2881348.2	30292479.1	96..100	4.098608	4.413485
47..51	2692853.0	27599626.1	97..101	2.398851	2.014634
48..52	2515003.3	25084622.8	98..102	1.281438	.733196
49..53	2348325.6	22736297.2	99..103	.580870	.1523261

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	55866386.	681659194.9	50 & 55	2071272.3	19016722.2
1.. 6	44641418.8	637017776.1	51.. 56	1929667.7	17087054.5
2.. 7	38979775.9	598038000.2	52.. 57	1794181.4	15292873.1
3.. 8	34739104.9	563298895.3	53.. 58	1663446.7	13629426.4
4.. 9	31924146.0	531374749.3	54.. 59	1535547.9	12093878.5
5..10	29663090.4	501711658.9	55.. 60	1410500.5	10683378.0
6..11	27888689.3	473822969.6	56.. 61	1287337.2	9396040.8
7..12	26358994.9	447463974.7	57.. 62	1170851.1	8225189.7
8..13	24996643.1	422467331.6	58.. 63	1061057.7	7164132.0
9..14	23753372.0	398713959.6	59.. 64	957471.9	6206660.1
10..15	22598154.6	376115805.0	60.. 65	859036.0	5347624.1
11..16	21497541.2	354618263.8	61.. 66	765533.2	4582090.9
12..17	20433076.7	334185187.1	62.. 67	679583.0	3902507.9
13..18	19413785.8	314771401.3	63.. 68	601080.9	3301427.0
14..19	18441070.8	296330330.5	64.. 69	530036.0	2771391.0
15..20	17510198.1	278820132.4	65.. 70	465347.7	2306043.3
16..21	16614357.2	262205775.2	66.. 71	406906.2	1899137.1
17..22	15757964.1	246447811.1	67.. 72	352580.5	1546556.6
18..23	14941881.6	231505929.5	68.. 73	301899.4	1244657.2
19..24	14166673.2	217339256.3	69.. 74	255180.8	989476.4
20..25	13430348.0	203908908.3	70.. 75	212278.8	777197.6
21..26	12728828.2	191180080.1	71.. 76	175082.1	602115.5
22..27	12064695.8	179115384.3	72.. 77	142126.3	459989.2
23..28	11430048.4	167685335.9	73.. 78	113668.1	346321.1
24..29	10818091.7	156867244.2	74.. 79	89793.7	256527.38
25..30	10226719.9	146640524.3	75.. 80	69253.33	187274.05
26..31	9662843.5	136977680.8	76.. 81	52597.80	134376.25
27..32	9128611.1	127849069.7	77.. 82	39520.61	94855.64
28..33	8621099.2	119227970.5	78.. 83	29146.18	65709.46
29..34	8134816.2	111093154.3	79.. 84	21207.08	44502.375
30..35	7666427.0	103426727.3	80.. 85	15122.341	29380.034
31..36	7222242.1	96204485.2	81.. 86	10532.326	18847.708
32..37	6801058.4	89403426.8	82.. 87	7075.044	11772.664
33..38	6402965.2	83000461.6	83.. 88	4581.864	7190.800
34..39	6026756.2	76973705.4	84.. 89	2918.549	4272.251
35..40	5667992.6	71305712.8	85.. 90	1852.030	2420.221
36..41	5323940.4	65981772.4	86.. 91	1085.978	1334.2434
37..42	4995382.1	60986390.3	87.. 92	601.5693	732.6741
38..43	4682827.0	56303563.3	88.. 93	326.4233	406.2508
39..44	4387512.2	51916051.1	89.. 94	181.3864	224.8644
40..45	4106968.6	47809082.5	90.. 95	102.6224	122.2420
41..46	3839933.1	43969149.4	91.. 96	55.9393	66.3027
42..47	3587429.8	40381719.6	92.. 97	30.06767	36.2350
43..48	3350224.9	37031494.7	93.. 98	16.19029	20.0447
44..49	3130161.1	33901333.6	94.. 99	9.06050	10.9842
45..50	2924658.1	30976675.5	95..100	5.346011	5.6382
46..51	2733351.4	28243324.1	96..101	3.065199	2.5730
47..52	2552275.0	25691049.1	97..102	1.647563	.9254
48..53	2381511.9	23309537.2	98..103	.739289	.1861
49..54	2221512.7	21087994.5			

TABLE XXIX. 665

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 6	52761398.	649562387.2	49 & 55	2100007.3	19511844.9
1..7	42397208.3	607165178.9	50..56	1955913.6	17555932.3
2..8	37150879.4	570014299.5	51..57	1820196.1	15735736.2
3..9	33183229.3	536831070.2	52..58	1669123.3	14046612.9
4..10	30540283.4	506290766.8	53..59	1560751.1	12485861.8
5..11	28394161.3	477896625.5	54..60	1434741.8	11051120.0
6..12	26686763.4	451109842.1	55..61	1310831.1	9740288.9
7..13	25218461.4	425991380.7	56..62	1193528.2	8546760.7
8..14	23910679.0	402080701.7	57..	1083703.9	7463056.8
9..15	22713594.1	379367107.6	58..	981223.7	6481833.1
10..16	21594482.2	357772625.4	59..65	884031.3	5597801.8
11..17	20532049.4	337240576.0	60..66	792058.3	4805743.5
12..8	19511342.5	317729233.5	61..67	704804.7	4100938.8
13..19	18537133.1	299192100.4	62..68	624439.8	3476499.0
14..20	17607477.0	281584623.4	63..69	551116.0	2925383.0
15..21	16717848.6	264866774.8	64..70	484621.6	2440761.4
16..22	15864385.4	249002389.4	65..71	424341.1	2016420.3
17..23	15045913.5	233956475.9	66..72	368230.8	1648189.5
18..24	14263999.2	219690476.7	67..73	315922.6	1332266.9
19..25	13525176.4	206165300.3	68..74	267611.4	1064655.5
20..26	12819342.4	193345957.9	69..75	223242.0	841413.5
21..27	12149078.3	181196879.6	70..76	184616.7	656796.8
22..28	11510555.1	169686324.5	71..77	151013.4	505783.4
23..29	10894828.7	158791495.8	72..78	121978.2	383805.2
24..30	10299780.4	148491715.4	73..79	97402.5	286402.73
25..31	9734039.9	138757675.5	74..80	76116.64	210286.09
26..32	9196370.5	129561305.0	75..81	58484.36	151801.73
27..33	8688592.2	120872712.8	76..82	44057.20	107744.53
28..34	8206199.3	112666513.5	77..83	32654.29	75090.24
29..35	7742520.6	104923992.9	78..84	23796.65	51293.59
30..36	7295951.7	97628041.2	79..85	17153.46	34140.133
31..37	6871185.1	90756856.1	80..86	11992.003	22148.130
32..38	6468492.7	84288363.4	81..87	8168.016	13980.114
33..39	6087947.2	78200416.2	82..88	5332.024	8648.090
34..40	5726131.2	72474285.0	83..89	3437.157	5210.933
35..41	5379116.0	67095169.0	84..90	2201.625	3009.308
36..42	5048656.0	62046513.0	85..91	1316.786	1692.5215
37..43	4734217.4	57312295.6	86..92	745.8647	946.6568
38..44	4437059.7	52875235.9	87..93	416.4711	530.1857
39..45	4156333.1	48718902.8	88..94	232.4953	297.6904
40..46	3890529.1	44828373.7	89..95	130.8075	166.8829
41..47	3637537.7	41190836.0	90..96	75.6512	91.2317
42..48	3399078.2	37791757.8	91..97	42.0947	49.13697
43..49	3176480.7	34615277.1	92..98	22.48651	26.65046
44..50	2968586.7	31646690.4	93..99	12.23167	14.418785
45..51	2774436.7	29872253.7	94..100	7.128014	7.290771
46..52	2590659.1	26281594.6	95..101	3.998085	3.292085
47..53	2416805.3	23864789.4	96..102	2.105219	1.187467
48..54	2252937.2	21611852.2	97..103	.950515	.236952

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	50108980.	619114273.2	49 & 56	1983047.1	18006302.2
1.. 8	40407969.0	578706304.2	50.. 57	1844952.1	16161350.1
2.. 9	35486986.6	543219317.6	51.. 58	1713614.8	14447735.3
3..10	31744787.4	511474530.2	52.. 59	1584842.4	12862892.9
4..11	29233829.7	482240700.5	53.. 60	1458290.6	11404602.3
5..12	27170471.3	455070229.2	54.. 61	1333359.5	10071242.8
6..13	25532066.9	429538162.3	55.. 62	1215310.0	8855932.8
7..14	24122860.7	405415301.6	56.. 63	1104693.1	7751239.7
8..15	22864015.3	332551286.3	57.. 64	1002166.0	6749073.7
9..16	21704794.7	360846491.6	58.. 65	905961.1	5843112.6
10..17	20624636.8	340221854.8	59.. 66	815104.8	5028007.8
11..18	19605850.5	320616004.3	60.. 67	729225.6	4298782.2
12..19	18630284.6	301985719.7	61.. 68	647614.9	3651167.3
13..20	17699197.0	284286522.7	62.. 69	572533.4	3078633.9
14..21	16810725.5	267475797.2	63.. 70	503895.4	2574738.5
15..22	15963205.3	251512591.9	64.. 71	441916.5	2132822.0
16..23	15147526.0	236365065.9	65.. 72	384008.7	1748813.3
17..24	14365325.4	221999740.5	66.. 73	329945.9	1418867.4
18..25	13620004.9	208379735.6	67.. 74	280042.0	1138825.4
19..26	12909856.7	195469878.9	68.. 75	234116.7	904708.7
20..27	12235470.0	183234408.9	69.. 76	194151.3	710557.4
21..28	11591061.9	171643347.0	70.. 77	159237.2	551320.2
22..29	10971565.8	160671781.2	71.. 78	129605.4	421714.8
23..30	10372840.8	150298940.4	72.. 79	104523.5	317191.25
24..31	9803580.6	140495359.8	73.. 80	82566.50	234624.75
25..32	9264129.9	131231229.9	74.. 81	64280.43	170344.32
26..33	8753085.5	122478144.4	75.. 82	48710.09	121634.23
27..34	8270444.0	114207700.4	76.. 83	36402.69	85231.54
28..35	7810461.3	106397239.1	77.. 84	26660.88	58570.66
29..36	7368368.1	99028871.0	78.. 85	19248.05	39322.61
30..37	6941311.7	92087559.3	79.. 86	13602.67	25719.941
31..38	6535190.2	85552369.1	80.. 87	9300.024	16419.917
32..39	6150250.8	79402118.3	81.. 88	6155.730	10264.187
33..40	5784269.8	73617848.5	82.. 89	3999.902	6264.285
34..41	5434291.5	68183557.0	83.. 90	2592.841	3671.444
35..42	5100978.6	63082578.4	84.. 91	1565.348	2106.0962
36..43	4784706.1	58297872.3	85.. 92	904.3864	1201.7098
37..44	4485752.9	53812119.4	86.. 93	516.3679	685.3419
38..45	4203269.9	49608849.5	87.. 94	296.6319	388.7100
39..46	3937292.2	45671557.3	88.. 95	167.6649	221.0451
40..47	3685466.9	41986090.4	89.. 96	96.4287	124.6164
41..48	3446555.1	38539535.3	90.. 97	56.9281	67.6883
42..49	3222800.2	35316735.1	91.. 98	31.4811	36.20717
43..50	3012515.4	32304219.7	92.. 99	16.98843	19.218735
44..51	2816109.0	29488110.7	93..100	9.622819	9.595916
45..52	2629599.7	26858511.0	94..101	5.330780	4.265136
46..53	2453152.0	24405359.0	95..102	2.745938	1.519198
47..54	2286325.2	22119033.8	96..103	1.214546	.304652
48..55	2129684.5	19989349.3			

TABLE XXIX. 679

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Twenty Years.

Ages	D.	N.	Ages.	D.	N.
0 &20	27793965.	324554057.9	45 & 65	1114648.1	8261019.7
1..21	22452336.1	302101721.8	46.. 66	1012521.5	7248498.2
2..22	19710757.8	282390964.0	47.. 67	918388.0	6330110.2
3..23	17598323.6	264792640.4	48.. 68	831544.2	5498566.0
4..24	16164744.6	248627895.8	49.. 69	751797.8	4746768.2
5..25	14989503.3	233638392.5	50.. 70	677976.7	4068791.5
6..26	14052862.1	219585530.4	51.. 71	609937.6	3458853.9
7..27	13248060.6	206337469.8	52.. 72	544075.8	2914778.1
8..28	12528391.1	193809078.7	53.. 73	480097.6	2434680.5
9..29	11863176.7	181945902.0	54.. 74	418698.8	2015981.7
10..30	11237389.2	170708512.8	55.. 75	360104.7	1655877.0
11..31	10648003.1	160060509.7	56.. 76	307566.4	1348310.6
12..32	10085121.8	149975387.9	57.. 77	260244.3	1088066.3
13..33	9551002.1	140424385.8	58.. 78	218684.3	869382.0
14..34	9044236.7	131380149.1	59.. 79	182855.2	686526.77
15..35	8560526.5	122819622.6	60.. 80	150620.81	535905.96
16..36	8096411.5	114723211.1	61.. 81	122939.38	412966.58
17..37	7651190.7	107072020.4	62.. 82	98728.83	314237.75
18..38	7226738.5	99845281.9	63.. 83	78524.10	235713.65
19..39	6823351.6	93021930.3	64.. 84	61659.42	174054.23
20..40	6437537.3	86584393.0	65.. 85	47890.05	126164.18
21..41	6066302.5	80518090.5	66,. 86	36416.43	89747.75
22..42	5712677.6	74805412.9	67.. 87	27041.31	62706.44
23..43	5376145.1	69429267.8	68.. 88	19474.75	43231.69
24..44	5058111.3	64371156.5	69,. 89	13930.69	29301.00
25..45	4757609.5	59613547.0	70.. 90	9992.64	19308.36
26..46	4473916.9	55139630.1	71.. 91	6737.79	12570.568
27..47	4206878.7	50932751.4	72.. 92	4355.281	8215.287
28..48	3955040.8	46977710.6	73.. 93	2809.773	5405.514
29..49	3717310.8	43260399.8	74.. 94	1844.930	3560.584
30..50	3490780.8	39769619.0	75.. 95	1210.510	2350.074
31..51	3278026.2	36491592.8	76.. 96	807.124	1542.950
32..52	3075190.9	33416401.9	77,. 97	544.826	998.124
33..53	2882466.8	30533935.1	78.. 98	363.681	634.443
34..54	2699438.5	27834496.6	79.. 99	244.860	389.58344
35..55	2525850.0	25308646.6	80..100	169.82494	219.75850
36..56	2360706.9	22947939.7	81..101	111.54657	108.21193
37..57	2203285.8	20744654.7	82..102	66.36017	41.85176
38..58	2051755.6	18692899.1	83..103	32.89837	8.95339
39..59	1903590.1	16789309.0			
40..60	1757498.1	15031810.9			
41..61	1612068.0	13419742.9			
42..62	1474007.3	11945735.6			
43..63	1344687.6	10601048.0			
44..64	1225380.2	9375667.8			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.

(Carlisle 4 per Cent.)

Difference of Age Twenty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 21	26536268.	308138807.6	42 & 63	1364295.9	10779872.6
1..22	21438838.2	286699969.4	43.. 64	1243513.2	9536359.4
2..23	18820093.4	267879876.0	44.. 65	1131390.2	8404969.2
3..24	16802279.5	251077596.5	45.. 66	1027740.9	7377228.3
4..25	15432771.0	235644825.5	46.. 67	932199.8	6445028.5
5..26	14307564.9	221337260.6	47.. 68	843867.4	5601161.1
6..27	13412807.6	207924453.0	48.. 69	762422.1	4838739.0
7..28	12639567.1	195284885.9	49.. 70	687382.4	4151356.6
8..29	11941740.8	183343145.1	50.. 71	618233.2	3533123.4
9..30	11294793.8	172048351.3	51.. 72	551964.7	2981158.7
10..31	10696019.3	161352332.0	52.. 73	487508.3	2493650.4
11..32	10133971.6	151218360.4	53.. 74	425570.9	2068079.5
12..33	9598997.1	141619363.3	54.. 75	366293.6	1701785.9
13..34	9091349.5	132528013.8	55.. 76	313179.5	1388606.4
14..35	8608085.0	123919928.8	56.. 77	265284.8	1123321.6
15..36	8146844.4	115773084.4	57.. 78	223351.8	899969.8
16..37	7702863.1	108070221.3	58.. 79	187391.3	712578.49
17..38	7277054.1	100793167.2	59.. 80	155003.40	557575.99
18..39	6871191.8	93921975.4	60.. 81	127199.13	430375.96
19..40	6482991.2	87438984.2	61.. 82	102392.99	327982.97
20..41	6109439.8	81329544.4	62.. 83	81575.68	246407.29
21..42	5752633.0	75576911.4	63.. 84	64111.67	182295.62
22..43	5414011.7	70162899.7	64.. 85	49873.57	132422.05
23..44	5093990.5	65068909.2	65.. 86	37976.77	94445.28
24..45	4791598.3	60277310.9	66.. 87	28241.61	66203.67
25..46	4506881.0	55770429.9	67.. 88	20379.36	45824.31
26..47	4238105.4	51532324.5	68.. 89	14609.29	31215.02
27..48	3986004.0	47546320.5	69.. 90	10508.71	20706.31
28..49	3749930.3	43796390.2	70.. 91	7104.73	13601.579
29..50	3525428.8	40270961.4	71.. 92	4627.613	8973.966
30..51	3311481.4	36959480.0	72.. 93	3015.195	5958.771
31..52	3106899.7	33852580.3	73.. 94	2001.263	3957.508
32..53	2911965.8	30940614.5	74.. 95	1330.479	2627.029
33..54	2726846.5	28213768.0	75.. 96	892.365	1734.664
34..55	2551758.5	25662009.5	76.. 97	607.368	1127.296
35..56	2385172.5	23276837.0	77.. 98	407.455	719.841
36..57	2226782.1	21050054.9	78.. 99	274.760	445.0811
37..58	2074271.9	18975783.0	79..100	192.6346	252.44646
38..59	1925087.0	17050696.0	80..101	127.00584	125.44062
39..60	1778622.7	15272073.3	81..102	76.61166	48.82896
40..61	1633309.1	13638764.2	82..103	38.28461	10.54435
41..62	1494595.7	12144168.5			

Difference of Age Twenty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 22	25338421.	292442227.8	5 & 27	13655909.6	209575343.8
1..23	20470087.4	271972140.4	6.. 28	12796747.1	196778596.7
2..24	17968783.8	254003356.6	7.. 29	12047711.0	184730885.7
3..25	16041436.9	237961919.7	8.. 30	11369593.8	173361291.9
4..26	14730666.3	223231253.4	9.. 31	10750658.4	162610633.5

TABLE XXIX. 681

ratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Twenty-Two Years—*continued.*

D.	N.	Ages.	D.	N.
10179669.8	152430963.7	46 & 68	856558.6	5701289.5
9645492.2	142785471.5	47.. 69	773721.0	4927568.5
9137034.7	133648436.8	48.. 70	697096.5	4230472.0
8652925.8	124995511.0	49.. 71	626810.1	3603661.9
8192104.6	116803406.4	50.. 72	559471.7	3044190.2
7750844.4	109052562.0	51.. 73	494576.9	2549613.3
7326199.6	101726362.4	52.. 74	432139.9	2117473.4
6919032.1	94807330.3	53.. 75	372305.6	1745167.8
6528445.0	88278885.3	54.. 76	318562.0	1426605.8
6152577.1	82126308.2	55.. 77	270126.3	1156479.5
5793539.8	76332768.4	56.. 78	227677.6	928801.9
5451878.2	70880890.2	57.. 79	191390.8	737411.05
5129869.6	65751020.6	58.. 80	158848.51	578562.54
4825587.1	60925433.5	59.. 81	130900.23	447662.31
4539078.4	56386355.1	60.. 82	105940.83	341721.48
4269332.0	52117023.1	61.. 83	84603.23	257118.25
4015591.1	48101432.0	62.. 84	66603.17	190515.08
3779287.8	44322144.2	63.. 85	51857.09	138657.99
3556364.4	40765779.8	64.. 86	39549.70	99108.29
3344349.7	37421430.1	65.. 87	29451.71	69656.58
3138608.3	34282821.8	66.. 88	21283.97	48372.61
2941991.5	31340830.3	67.. 89	15287.90	33084.71
2754752.7	28586077.6	68.. 90	11020.61	22064.10
2577667.1	26008410.5	69.. 91	7471.66	14592.437
2409638.0	23598772.5	70.. 92	4879.622	9712.815
2249859.8	21348912.7	71.. 93	3203.732	6509.083
2096393.3	19252519.4	72.. 94	2147.574	4361.509
1946213.2	17306306.2	73.. 95	1443.218	2918.291
1798708.4	15507597.8	74.. 96	980.802	1937.489
1652940.9	13854656.9	75.. 97	671.511	1265.978
1514288.9	12340368.0	76.. 98	454.227	811.751
1383351.9	10957016.1	77.. 99	307.831	503.9203
1261646.3	9695369.8	78..100	216.1571	287.7632
1148132.3	8547237.5	79..101	144.0643	143.69891
1043177.6	7504059.9	80..102	87.22928	56.46963
946211.8	6557848.1	81..103	44.19892	12.27071

Difference of Age Twenty-Three Years.

D.	N.	Ages.	D.	N.
24193461.	277432956.9	10 & 33	9688987.7	143923098.9
19544142.0	257888814.9	11.. 34	9181292.2	134741806.7
17155119.4	240733695.5	12.. 35	8696407.9	126045398.8
15311641.6	225422053.9	13.. 36	8234778.6	117810620.2
14059740.4	211362313.5	14.. 37	7793904.7	110016715.5
13028683.3	198333630.2	15.. 38	7371834.9	102644880.6
12197530.8	186136099.4	16.. 39	6965759.8	95679120.8
11470486.7	174665612.7	17.. 40	6573899.0	89105221.8
10821854.9	163843757.8	18.. 41	6195714.3	82909507.5
10231671.2	153612086.6	19.. 42	5834446.6	77075060.9

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 4 per Cent.)

Difference of Age Twenty-Three Years—*continued*

Ages.	D.	N.	Ages.	D.	
20 & 43	5490646.3	71584414.6	51 & 74	438405.8	216431
21..44	5165748.8	66418665.8	52.. 75	378052.5	178626
22..45	4859575.6	61559090.2	53.. 76	323790.5	146247
23..46	4571275.9	56987814.3	54.. 77	274768.7	118776
24..47	4299832.4	52687981.9	55.. 78	231832.6	95586
25..48	4045178.2	48642803.7	56.. 79	195097.6	76077
26..49	3807340.6	44835463.1	57.. 80	162238.83	59853
27..50	3584206.5	41251256.6	58.. 81	134147.42	46438
28..51	3373696.3	37877560.3	59.. 82	109023.38	35536
29..52	3169760.7	34707799.6	60.. 83	87534.67	26781
30..53	2972017.3	31735782.3	61.. 84	69075.04	19878
31..54	2783157.4	28952624.9	62.. 85	53872.34	14483
32..55	2604046.8	26348578.1	63.. 86	41122.63	10371
33..56	2434103.6	23914474.5	64.. 87	30671.55	7308
34..57	2272937.4	21641537.1	65.. 88	22195.93	5086
35..58	2118119.6	19523417.5	66.. 89	15966.50	3492
36..59	1966968 9	17556448.6	67.. 90	11532.52	2338
37..60	1818447.8	15738000.8	68.. 91	7835.61	1553
38..61	1671607.3	14066393.5	69.. 92	5131.632	1049
39..62	1532490.3	12533903.2	70.. 93	3378.200	704
40..63	1401579.4	11132323.8	71.. 94	2281.861	476
41..64	1279268.4	9853055.4	72.. 95	1548.732	32
42..65	1164874.5	8688180.9	73.. 96	1063.911	21
43..66	1058614.4	7629566.5	74.. 97	738.061	14
44..67	960424.1	6669142.4	75.. 98	502.198	■
45..68	869433.7	5799708.7	76.. 99	343.166	5
46..69	785357.2	5014351.5	77..100	242.1743	3.
47..70	707427.2	4306924.3	78..101	161.6559	1
48..71	635668.1	3671256.2	79..102	98.9453	
49..72	567233.5	3104022.7	80..103	50.32446	
50..73	501303.5	2602719.2			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	
0 & 24	23099092.	263080712.5	15 & 39	7009149.7	965373
1..25	18659142.0	244421570.5	16.. 40	6618295.8	899191
2..26	16374657.6	228046912.9	17.. 41	6238851.5	83680
3..27	14614254.4	213432658.5	18.. 42	5875353.3	778043
4..28	13413965.9	200018692.6	19.. 43	5529414.5	722754
5..29	12418606.5	187600086.1	20.. 44	5202482.2	670721
6..30	11613128.5	175986957.6	21.. 45	4893564.3	62179
7..31	10917867.2	165069070.4	22.. 46	4603473.4	57575
8..32	10299430 6	154769639.8	23.. 47	4330332.8	53245
9..33	9738482.5	145031157.3	24.. 48	4074077.3	49171
10..34	9222694.3	135808463.0	25.. 49	3835393.2	■■■■
11..35	8738531.1	127069931.9	26.. 50	3610811.2	41725
12..36	8276159.4	116793772.5	27.. 51	3400108.3	38325
13..37	7834504.2	110959268.3	28.. 52	3197575.4	35127
14..38	7412789.6	103546478.7	29.. 53	3001516.1	32126

TABLE XXIX. 683

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Twenty-Four Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
30 &54	2311562.0	29314517.7	55 & 79	198658.1	782658.25
31..55	2630897.4	26683620.3	56.. 80	165381.07	617277.18
32..56	2459014.0	24224606.3	57.. 81	137010.54	480266.64
33..57	2296015.1	21928591.2	58.. 82	111727.87	368538.77
34..58	2139846.0	19788745.2	59.. 83	90081.65	278457.12
35..59	1987354.0	17801391.2	60.. 84	71468.43	206988.69
36..60	1837840.8	15963550.4	61.. 85	55871.73	151116.96
37..61	1689951.8	14273598.6	62.. 86	42720.73	108396.23
38..62	1549796.4	12723802.2	63.. 87	31891.38	76504.85
39..63	1418425.9	11305376.3	64.. 68	23115.24	53389.61
40..64	1296124.4	10009251.9	65.. 89	16650.63	36738.98
41..65	1181145.0	8828106.9	66.. 90	12044.42	24694.56
42..66	1074051.2	7754055.7	67.. 91	8199.59	16494.972
43..67	974636.2	6779419.5	68.. 92	5381.606	11113.366
44..68	882492.5	5896927.0	69.. 93	3552.668	7560.698
45..69	797162.0	5099765.0	70.. 94	2406.126	5154.572
46..70	718066.3	4381698.7	71.. 95	1645.573	3508.999
47..71	645088.4	3736610.3	72.. 96	1141.693	2367.306
48..72	575249.5	3161360.8	73.. 97	800.601	1566.705
49..73	508258.1	2653102.7	74.. 98	551.969	1014.736
50..74	444368.3	2208734.4	75.. 99	379.408	635.3276
51..75	383534.1	1825200.3	76..100	269.9736	365.3540
52..76	328788.4	1496411.9	77..101	181.1132	184.2408
53..77	279278.5	1217133.4	78..102	111.0274	73.2134
54..78	235817.0	981316.4	79..103	57.0837	16.12965

Difference of Age Twenty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 &25	22053117.	249356200.1	20 & 45	4928362.2	62787274.7
1..26	17810255.5	231545944.6	21.. 46	4635670.9	58151603.8
2..27	15628854.0	215917090.6	22.. 47	4360833.3	53790770.5
3..28	13943010.5	201974080.1	23.. 48	4102976.3	49687794.2
4..29	12785848.0	189188232.1	24.. 49	3862793.6	45825000.6
5..30	11823612.0	177364620.1	25.. 50	3637415.9	42187584.7
6..31	11053657.1	166310963.0	26.. 51	3425346.5	38762238.2
7..32	10390827.0	155920136.0	27.. 52	3222608.7	35539629.5
8..33	9802975.9	146117160.1	28.. 53	3027854.5	32511775.0
9..34	9269807.2	136847352.9	29.. 54	2839468.3	29672306.7
10..35	8777936.7	128069416.2	30.. 55	2657748.1	27014558.6
11..36	8316247.0	119753169.2	31.. 56	2484369.2	24530189.4
12..37	7873873.7	111879295.5	32.. 57	2319512.3	22210677.1
13..38	7451403.9	104427891.6	33.. 58	2161572.4	20049104.7
14..39	7048089.4	97379802.2	34.. 59	2007739.0	18041365.7
15..40	6659521.4	90720280.8	35.. 60	1856887.4	16184478.3
16..41	6280985.6	84439295.2	36.. 61	1707974.6	14476503.7
17..42	5916260.1	78523035.1	37.. 62	1566804.2	12909699.5
18..43	5568182.5	72954852.6	38.. 63	1434444.0	11475255.5
19..44	5239215.7	67715636.9	39.. 64	1311703.5	10163552.0

TABLE XXIX.

Preparatory Table for finding the Values of Annuities, &c. on Two Jo
(Carlisle 4 per Cent.)

Difference of Age Twenty-Five Years—*continued*.

Ages.	D.	N.	Ages.	D.	
40 & 65	1196708.1	8966843.9	60 & 85	57807.65	1573
41..66	1089053.2	7877790.7	61.. 86	44306.23	1130
42..67	988848.4	6888942.3	62.. 87	33130.71	795
43..68	895551.5	5993390.8	63.. 88	24034.55	558
44..69	809135.4	5184255.4	64.. 89	17340.26	385
45..70	728859.7	4455395.7	65.. 90	12560.50	259
46..71	654790.1	3800605.6	66.. 91	8563.55	174
47..72	583774.5	3216831.1	67.. 92	5631.583	117
48..73	515440.8	2701390.3	68.. 93	3725.728	80
49..74	450533.2	2250857.1	69.. 94	2530.391	55
50..75	388750.4	1862106.7	70.. 95	1735.187	37
51..76	333555.8	1528550.9	71.. 96	1213.083	25
52..77	283589.4	1244961.5	72.. 97	859.134	17
53..78	239687.6	1005273.9	73.. 98	598.741	11
54..79	202072.3	803201.61	74.. 99	417.010	7
55..80	168399.28	634802.33	75..100	293.4856	4
56..81	139664.16	495138.17	76..101	201.9033	2
57..82	114112.49	381025.68	77..102	124.3911	
58..83	92316.28	288709.40	78..103	64.0542	
59..84	73547.94	215161.46			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	
0 & 26	21049823.	236234254.6	25 & 51	3450584.6	39168
1..27	16939066.0	219235188.6	26.. 52	3246529.2	35941
2..28	14911008.8	204324179.8	27.. 53	3051558.9	32890
3..29	13290119.8	191034060.0	28.. 54	2864394.7	30026
4..30	12173258.4	178860601.6	29.. 55	2684127.7	27341
5..31	11254000.5	167606801.1	30.. 56	2509724.4	24832
6..32	10520042.7	157086758.4	31.. 57	2343429.1	22488
7..33	9889966.8	147196791.6	32.. 58	2183693.7	20305
8..34	9331196.6	137865595 0	33.. 59	2028124.0	18276
9..35	8822777.5	129042817.5	34.. 60	1875934.4	16400
10..36	8353748.3	120689069.2	35.. 61	1725675.5	14675
11..37	7912012.8	112777056.4	36.. 62	1593513.6	13091
12..38	7488848.1	105288208.3	37.. 63	1450185.9	11641
13..39	7084804.0	98203404.3	38.. 64	1326516.3	10315
14..40	6696518.6	91506885.7	39.. 65	1211092.2	9103
15..41	6320110.1	85186775.6	40.. 66	1103402.8	8000
16..42	5956215.5	79230560.1	41.. 67	1002660.2	6997
17..43	5606950.6	73623609.5	42.. 68	908610.6	6089
18..44	5275949.1	68347660.4	43.. 69	821108.9	5268
19..45	4963160.2	63384500.2	44.. 70	739807.2	4528
20..46	4668634.9	58713865.3	45.. 71	664632.4	3863
21..47	4391353.7	54324531.6	46.. 72	592554.0	3271
22..48	4131875.4	50192656.2	47.. 73	523079.5	2748
23..49	3890193.8	46302462.4	48.. 74	456900.1	2291
24..50	3663401.9	42639060.5	49.. 75	394143.6	1897

TABLE XXIX. 685

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Twenty-Six Years—continued.

Ages	D.	N.	Ages	D.	N.
50 & 76	336092.3	1558994.7	64 & 90	13080.73	27258.39
51..77	287701.3	1271293.4	65..91	8930.47	16327.917
52..78	243387.3	1027906.1	66..92	5881.559	12446.358
53..79	205389.0	822517.11	67..93	3898.789	8547.569
54..80	171293.43	651223.66	68..94	2653.652	5893.917
55..81	142213.03	509010.63	69..95	1824.801	4069.116
56..82	116322.62	392688.01	70..96	1279.145	2789.971
57..83	94286.58	295491.43	71..97	912.855	1877.116
58..84	75372.42	223029.01	72..98	642.514	1234.602
59..85	59489.66	163539.35	73..99	452.345	782.2570
60..86	45841.41	117697.94	74..100	323.0668	454.1902
61..87	34360.32	83337.62	75..101	223.2263	230.9639
62..88	24968.59	58369.03	76..102	138.6699	92.2940
63..89	18029.91	40339.12	77..103	71.7638	20.5302

Difference of Age Twenty-Seven Years.

Ages	D.	N.	Ages	D.	N.
0 & 27	20091084.	223687019.5	30 & 57	2367345.9	22763571.1
1..28	16218285.9	207468733.6	31..58	2206210.0	20557361.1
2..29	14212791.0	193255942.6	32..59	2048879.7	18508481.4
3..30	12653369.8	180602572.8	33..60	1894981.2	16613500.2
4..31	11586802.4	169015770.4	34..61	1743376.3	14870123.9
5..32	10710714.5	158305055.9	35..62	1599924.6	13270199.3
6..33	10012953.9	148292102.0	36..63	1465651.6	11804547.7
7..34	9414000.9	138878101.1	37..64	1341073.8	10463473.9
8..35	8881206.6	129996894.5	38..65	1224768.9	9238705.0
9..36	8396422.3	121600472.2	39..66	1116665.4	8122039.6
10..37	7947691.3	113652780.9	40..67	1015871.6	7106168.0
11..38	7525122.2	106127658.7	41..68	921301.7	6184866.3
12..39	7120406.1	99007252.6	42..69	833082.3	5351784.0
13..40	6731401.9	92275850.7	43..70	750754.8	4601029.2
14..41	6355221.9	85920628.8	44..71	674615.2	3926414.0
15..42	5993317.0	79927311.8	45..72	601460.9	3324953.1
16..43	5644817.2	74282494.6	46..73	530946.2	2794006.9
17..44	5312682.7	68969811.9	47..74	463671.2	2330335.7
18..45	4997958.1	63971853.8	48..75	399713.6	1930622.1
19..46	4701599.1	59270254.7	49..76	342782.7	1587839.4
20..47	4422560.3	54847694.4	50..77	291614.3	1296225.1
21..48	4160774.4	50686920.0	51..78	246916.3	1049308.8
22..49	3917594.2	46769325.8	52..79	208559.3	840749.53
23..50	3689387.8	43079938.0	53..80	174104.92	666644.61
24..51	3475235.9	39604702.1	54..81	144657.15	521987.46
25..52	3270449.8	36334252.3	55..82	116445.48	403541.98
26..53	3074210.0	33260042.3	56..83	96112.73	307429.25
27..54	2886869.4	30373232.9	57..84	76981.10	230448.15
28..55	2707681.0	27665551.9	58..85	60965.41	169482.74
29..56	2534634.9	25130917.0	59..86	47175.26	122307.48

Preparatory Table for finding the Values of Annuities, &c. on **Two Joint Lives.**
(Carlisle 4 per Cent.)
Difference of Age Twenty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
60 &87	35550.89	86756.59	69 & 96	1345.206	2988.207
61..86	25895.25	60861.34	70.. 97	962.567	2025.640
62..89	18730.58	42130.76	71.. 98	682.690	1342.950
63..90	13600.96	28529.60	72.. 99	485.417	857.5331
64..91	9300.36	19229.430	73..100	355.8661	501.6670
65..92	6135.569	13095.870	74..101	245.3492	256.3178
66..93	4071.850	9024.020	75..102	153.3149	103.0029
67..94	2776.915	6247.105	76..103	80.0017	23.0012
68..95	1913.692	4333.413			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 &28	19168285.	211693255.4	38 & 66	1129275.7	8241375.2
1..29	15458654.0	196234401.4	39.. 67	1028082.0	7213293.2
2..30	13531834.5	182702566.9	40.. 68	933441.0	████████
3..31	12043784.0	170658782.9	41.. 69	844718.6	5435133.6
4..32	11027450.3	159631332.6	42.. 70	761702.4	4673431.2
5..33	10194434.9	149436897.7	43.. 71	684598.0	3988833.2
6..34	9531069.3	139905828.4	44.. 72	610494.8	3378338.4
7..35	8960017.8	130945810.6	45.. 73	538926.9	2839411.5
8..36	8452027.8	122493782.8	46.. 74	470644.4	2368767.1
9..37	7988290.9	114505491.9	47.. 75	405637.2	1963129.9
10..38	7559056.0	106946435.9	48.. 76	347626.9	1615503.0
11..39	7154895.6	99791540.3	49.. 77	295660.0	████████
12..40	6765228.0	93026312.3	50.. 78	250274.5	1069568.5
13..41	6388327.1	86637985.2	51.. 79	211583.3	857983.16
14..42	6026613.2	80611372.0	52.. 80	176792.36	681192.82
15..43	5679979.0	74931393.0	53.. 81	147031.45	534161.37
16..44	5348561.9	69582831.1	54.. 82	120481.16	413680.21
17..45	5032756.0	64550075.1	55.. 83	97866.78	315813.43
18..46	4734563.1	59815512.0	56.. 84	78472.07	237341.36
19..47	4453786.9	55361725.1	57.. 85	62266.59	175074.77
20..48	4190361.5	51171363.6	58.. 86	48345.52	126729.25
21..49	3944994.5	47226369.1	59.. 87	36585.30	90143.95
22..50	3715373.9	43510995.2	60.. 88	26792.50	63351.45
23..51	3499887.1	40011108.1	61.. 89	19425.73	43925.72
24..52	3293814.2	36717293.9	62.. 90	14129.52	29796.20
25..53	3096860.9	33620433.0	63.. 91	9670.23	20125.966
26..54	2908237.5	30712195.5	64.. 92	6387.610	13738.356
27..55	2728878.9	27983316.6	65.. 93	4246.317	9492.039
28..56	2556876.3	25426440.3	66.. 94	2900.179	6591.860
29..57	2390843.1	23035597.2	67.. 95	2002.584	4589.276
30..58	2228726.5	20806870.7	68.. 96	1410.736	3178.541
31..59	2070006.0	18736864.7	69.. 97	1012.279	2166.262
32..60	1914374.2	16822490.5	70.. 98	719.868	1446.3939
33..61	1761077.3	15061413.2	71.. 99	515.770	████████
34..62	1616335.6	13445077.6	72..100	381.8833	548.7406
35..63	1480841.2	11964236.4	73..101	266.1393	████████
36..64	1355375.8	10608860.6	74..102	168.5091	114.0922
37..65	1238209.7	9370650.9	75..103	88.4506	25.6416

TABLE XXIX. 687

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Twenty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 &29	16270717.	200241148.8	38 & 67	1039692.0	7318563.4
1..30	14718196.5	185522952.3	39.. 68	944660.7	6373902.7
2..31	12879928.0	172643024.3	40.. 69	855848.8	5518053.9
3..32	11462371.3	161180653.0	41.. 70	772341.6	4745712.3
4..33	10495903.4	150684749.6	42.. 71	694580.9	4051131.4
5..34	9703816.3	140980933.3	43.. 72	619528.8	3431602.6
6..35	9071440.4	131909492.9	44.. 73	547021.6	2884581.0
7..36	8527030.4	123382462.5	45.. 74	477718.7	2406862.3
8..37	8041193.6	115341268.9	46.. 75	411737.7	1995124.6
9..38	7597670.4	107743598.5	47.. 76	352778.6	1642346.0
10..39	7187159.9	100556438.6	48.. 77	299838.1	1342507.9
11..40	6797997.1	93758441.5	49.. 78	253746.7	1088761.2
12..41	6420429.3	87338012.2	50.. 79	214461.0	874300.21
13..42	6058006.8	81280005.4	51.. 80	179355.77	694944.44
14..43	5711534.4	75568471.0	52.. 81	149300.99	645643.45
15..44	5381878.2	70186592.8	53.. 82	122458.64	423184.81
16..45	5066744.9	65119847.9	54.. 83	99548.76	323636.05
17..46	4767527.3	60352320.6	55.. 84	79904.18	243731.87
18..47	4485013.5	55867307.1	56.. 85	63472.58	180259.29
19..48	4219948.7	51647358.4	57.. 86	49377.35	130881.94
20..49	3973047.3	47674311.1	58.. 87	37492.86	93389.08
21..50	3741359.8	43932951.3	59.. 88	27572.08	65817.00
22..51	3524538.5	40408412.8	60.. 89	20098.81	45718.19
23..52	3317178.5	37091234.3	61.. 90	14653.92	31064.27
24..53	3118985.1	33972249.2	62.. 91	10046.04	21018.228
25..54	2929665.6	31042383.6	63.. 92	6641.651	14376.577
26..55	2749134.7	28293448.9	64.. 93	4422.192	9954.385
27..56	2576893.7	25716555.2	65.. 94	3024.442	6929.943
28..57	2411822.8	23304732.4	66.. 95	2091.475	4838.468
29..58	2250847.8	21053884.6	67.. 96	1476.264	3362.204
30..59	2091132.3	18962752.3	68.. 97	1061.589	2300.615
31..60	1934113.6	17028638.7	69.. 98	757.045	1543.570
32..61	1779100.1	15249538.6	70.. 99	543.857	999.7129
33..62	1632746.6	13616792.0	71..100	405.7622	593.9507
34..63	1496030.6	12120761.4	72..101	285.5966	303.3541
35..64	1369422.5	10751338.9	73..102	182.7879	125.5662
36..65	1251414.8	9499924.1	74..103	97.2166	28.3496
37..66	1141668.7	8358255.4			

Difference of Age Thirty Years.

Ages.	D.	N.	Ages.	D.	N.
0 &30	17395339.	189322297.3	8 & 38	7647986.2	108524911.9
1..31	14009136.1	175313161.2	9.. 39	7223874.5	101301037.4
2..32	12258150.4	163055010.8	10.. 40	6828652.0	94472385.4
3..33	10909860.2	152145150.6	11.. 41	6451528.3	88020857.1
4..34	9990776.4	142154374.2	12.. 42	6088449.1	81932408.0
5..35	9235856.9	132918517.3	13.. 43	5741286.7	76191121.3
6..36	8633068.7	124285448.6	14.. 44	5411777.5	70779343.8
7..37	8112550.5	116172898.1	15.. 45	5098305.8	65681038.0

TABLE XXIX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
16 & 46	4799724.8	60881313.2	45 & 75	417926.6	2026893.9
17..47	4516240.2	56365073.0	46.. 76	358084.2	1668809.7
18..48	4249535.8	52115537.2	47.. 77	304281.7	1364528.0
19..49	4001100.1	48114437.1	48.. 78	257332.6	1107195.4
20..50	3767964.5	44346472.6	49.. 79	217436.3	889759.10
21..51	3549189.6	40797283.0	50.. 80	181795.14	707963.96
22..52	3340542.9	37456740.1	51.. 81	151465.78	556498.18
23..53	3141109.4	34315630.7	52.. 82	124348.67	432149.31
24..54	2950595.4	31365035.3	53.. 83	101182.68	330966.63
25..55	2769390.5	28595644.8	54.. 84	81277.44	249689.19
26..56	2596021.3	25999623.5	55.. 85	64630.95	185058.24
27..57	2430704.6	23568918.9	56.. 86	50333.70	134724.54
28..58	2270599.0	21298319.9	57.. 87	38293.06	96431.48
29..59	2111887.9	19186432.0	58.. 88	28256.05	68175.43
30..60	1953853.0	17232579.0	59.. 89	20683.62	47491.81
31..61	1797444.6	15435134.4	60.. 90	15161.66	32330.15
32..62	1649455.9	13785078.5	61.. 91	10418.89	21911.260
33..63	1511220.2	12274458.3	62.. 92	6899.757	15011.503
34..64	1383469.1	10890989.2	63.. 93	4598.066	10413.437
35..65	1264384.1	9626605.1	64.. 94	3149.708	7263.729
36..66	1153844.1	8472761.0	65.. 95	2181.088	5082.641
37..67	1051101.9	7421659.1	66.. 96	1541.794	3540.847
38..68	955328.6	6466330.5	67.. 97	1110.901	2429.946
39..69	866135.8	5600194.7	68.. 98	793.923	1636.023
40..70	782518.2	4817676.5	69.. 99	571.944	1064.0785
41..71	704292.5	4113394.0	70..100	427.8590	636.2195
42..72	628562.9	3484831.1	71..101	303.4546	332.7649
43..73	555116.4	2929714.7	72..102	196.1515	136.6134
44..74	484894.2	2444820.5	73..103	105.4543	31.1591

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 31	16557306.	178915269.1	15 & 46	4829622.4	61402355.8
1..32	13332846.2	165562422.9	16.. 47	4546740.6	56855615.2
2..33	11667281.0	153915141.9	17.. 48	4279122.8	52576494.4
3..34	10384810.9	143530331.0	18.. 49	4029152.7	48547339.7
4..35	9508978.4	134021352.6	19.. 50	3794569.1	44752770.6
5..36	8789539.8	125231812.8	20.. 51	3574427.8	41178342.9
6..37	8213434.6	117018378.2	21.. 52	3363907.1	37814435.7
7..38	7715853.8	109302524.4	22.. 53	3163233.5	34651202.2
8..39	7271714.7	102030809.7	23.. 54	2971525.1	31679677.1
9..40	6863535.2	95167274.5	24.. 55	2789175.3	28890501.8
10..41	6480620.8	88686653.7	25.. 56	2615148.9	26275352.9
11..42	6117940.0	82568713.7	26.. 57	2448747.1	23826605.8
12..43	5770137.4	76798576.3	27.. 58	2288375.1	21538230.7
13..44	5439968.3	71358608.0	28.. 59	2130419.8	19407810.9
14..45	5126629.8	66231978.2	29.. 60	1973246.1	17434564.8

TABLE XXIX. 659

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-One Years—continued.

Ages	D.	N.	Ages	D.	N.
30 & 61	1815789.2	15618775.6	52 & 83	102744.51	337881.72
31..62	1666463.8	13952311.8	53.. 84	82611.47	255270.25
32..63	1526685.9	12425625.9	54.. 85	65741.72	189528.53
33..64	1397515.8	11028110.1	55.. 86	51252.29	138276.24
34..65	1277353.2	9750756.9	56.. 87	39034.73	99241.51
35..66	1165802.2	8584954.7	57.. 88	28859.12	70382.39
36..67	1062311.4	7523643.3	58.. 89	21196.71	49185.68
37..68	965812.7	6556830.6	59.. 90	15602.81	33582.87
38..69	875917.0	5660913.6	60.. 91	10779.89	22802.975
39..70	791923.8	4888969.8	61.. 92	7155.831	15647.144
40..71	713562.3	4175427.5	62.. 93	4776.755	10870.389
41..72	637342.4	3538085.1	63.. 94	3274.976	7595.413
42..73	568211.1	2974974.0	64.. 95	2271.425	5323.988
43..74	492069.5	2482804.5	65.. 96	1607.854	3716.134
44..75	424203.8	2058600.7	66.. 97	1160.212	
45..76	363466.5	1695134.2	67.. 98	830.801	1725.121
46..77	308637.8	1386276.4	68.. 99	577.405	1125.3162
47..78	261146.2	1125130.2	69..100	449.9559	675.3603
48..79	220509.1	904621.13	70..101	319.9801	355.3802
49..80	184317.20	720303.93	71..102	208.4167	146.9635
50..81	153525.82	566778.11	72..103	113.1640	33.7995
51..82	126151.88	440626.23			

Difference of Age Thirty-Two Years.

Ages	D.	N.	Ages	D.	N.
0 & 32	15758003.	168997077.1	22 & 54	2992454.8	31987107.3
1..33	12690174.1	156306903.0	23.. 55	2808960.0	29178147.3
2..34	11105780.2	143201122.8	24.. 56	2633831.8	26544315.5
3..35	9684011.3	135317111.5	25.. 57	2466789.5	24077526.0
4..36	9049463.0	126267648.5	26.. 58	2305361.0	21772165.0
5..37	8362299.8	117905349.7	27.. 59	2147098.4	19625066.6
6..38	7811804.7	110093544.0	28.. 60	1990561.3	17634505.3
7..39	7336243.4	102757300.6	29.. 61	1833811.8	15800693.5
8..40	6908989.1	95848311.5	30.. 62	1683471.6	14117221.9
9..41	6513726.2	89334585.3	31.. 63	1542427.8	12574794.1
10..42	6145528.3	83189057.0	32.. 64	1411817.9	11162976.2
11..43	5798086.5	77390970.5	33.. 65	1290322.5	9872653.7
12..44	5467304.8	71923665.7	34.. 66	1177760.2	8694893.5
13..45	5153335.1	66770330.6	35.. 67	1073320.8	7621572.7
14..46	4856453.6	61913877.0	36.. 68	976112.7	6645460.0
15..47	4575062.4	57338814.6	37.. 69	885529.4	5759930.6
16..48		53030792.7	38.. 70	800867.0	4959063.6
17..49	4057205.3	48973587.4	39.. 71	722139.1	4236924.5
18..50		45152413.6	40.. 72	645740.2	3591184.3
19..51		41552747.6	41.. 73	571077.8	3020106.5
20..52	3387827.8	38164919.8	42.. 74	499244.9	2520861.6
21..53	3185357.7	34979562.1	43.. 75	430481.1	2090380.5

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 & 76	368925.8	1721454.7	58 & 90	15989.87	34779.74
45.. 77	313500.2	1407954.5	59.. 91	11093.55	23686.193
46.. 78	265073.6	1142880.9	60.. 92	7403.774	16282.419
47.. 79	223776.9	919104.00	61.. 93	4954.037	11328.382
48.. 80	186921.96	732182.04	62.. 94	3402.247	7926.135
49.. 81	155655.71	576526.33	63.. 95	2361.762	5564.373
50.. 82	127867.64	448658.69	64.. 96	1674.447	3889.926
51.. 83	104234.25	344424.44	65.. 97	1209.923	2680.003
52.. 84	83886.64	260537.80	66.. 98	867.679	1812.324
53.. 85	66820.76	193717.04	67.. 99	627.667	1184.6570
54.. 86	52133.13	141583.91	68..100	471.8745	712.7825
55.. 87	39747.12	101836.79	69..101	336.5055	376.2770
56.. 88	29418.06	72418.73	70..102	219.7665	156.5105
57.. 89	21649.12	50769.61	71..103	120.2400	36.2705

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 33	14998433.	159543238.9	30 & 63	1558169.6	12722449.1
1.. 34	12079445.5	147463793.4	31.. 64	1426375.4	11296073.7
2.. 35	10570212.1	136893581.3	32.. 65	1303527.6	9992546.1
3.. 36	9406372.4	127487208.9	33.. 66	1189718.2	8802827.9
4.. 37	8609588.6	118877620.3	34.. 67	1084330.3	7718497.6
5.. 38	7953390.7	110924229.6	35.. 68	986228.9	6732268.7
6.. 39	7427473.6	103496756.0	36.. 69	894973.3	5837295.4
7.. 40	6970299.0	96526457.0	37.. 70	809655.8	5027639.6
8.. 41	6556863.4	89969593.6	38.. 71	730294.1	4297345.5
9.. 42	6176921.9	83792671.7	39.. 72	653501.8	3643843.7
10.. 43	5824232.4	77968439.3	40.. 73	578602.5	3065241.2
11.. 44	5493787.1	72474652.2	41.. 74	506218.1	2559023.1
12.. 45	5179231.2	67295421.0	42.. 75	436758.5	2122264.6
13.. 46	4881751.6	62413669.4	43.. 76	374385.2	1747879.4
14.. 47	4600479.4	57813190.0	44.. 77	318209.1	1429670.3
15.. 48	4334856.8	53478333.2	45.. 78	269058.0	1160612.3
16.. 49	4084605.7	49393727.5	46.. 79	227142.3	933469.95
17.. 50	3847778.5	45545949.0	47.. 80	189692.08	743777.87
18.. 51	3624904.1	41921044.9	48.. 81	157855.42	585922.45
19.. 52	3411748.5	38509296.4	49.. 82	129641.55	456280.90
20.. 53	3208008.7	35301287.7	50.. 83	105651.91	350628.99
21.. 54	3013384.6	32287903.1	51.. 84	85102.95	265526.04
22.. 55	2828744.7	29459158.4	52.. 85	67852.19	197673.85
23.. 56	2652514.6	26806643.8	53.. 86	52988.80	144685.05
24.. 57	2484412.6	24322231.2	54.. 87	40430.23	104254.82
25.. 58	2322347.1	21999884.1	55.. 88	29954.94	74299.88
26.. 59	2163035.8	19836848.3	56.. 89	22068.42	52231.46
27.. 60	2006145.1	17830703.2	57.. 90	16331.16	35900.30
28.. 61	1849903.6	15980799.6	58.. 91	11368.75	24531.545
29.. 62	1700180.9	14280618.7	59.. 92	7619.201	16912.344

TABLE XXIX. 691

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-Three Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
60 & 93	5125.690	11786.654	66 & 99	655.527	1243.1336
61.. 94	3528.516	8258.138	67..100	493.7931	749.3405
62.. 95	2453.543	5804.595	68..101	352.8976	396.4429
63.. 96	1741.042	4063.553	69..102	231.1164	165.3265
64.. 97	1260.036	2803.517	70..103	126.7880	38.5385
65.. 98	904.856	1898.661			

Difference of Age Thirty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 34	14276617.	150530263.8	35 & 69	904248.5	5913055.2
1.. 35	11496923.0	139033340.8	36.. 70	818290.4	5094764.8
2.. 36	10059413.0	128973927.8	37.. 71	738308.6	4356456.2
3.. 37	8949149.6	120024778.2	38.. 72	660881.6	3695574.6
4.. 38	8188587.4	111836190.8	39.. 73	585557.1	3110017.5
5.. 39	7562093.7	104274097.1	40.. 74	512888.2	2597129.3
6.. 40	7056978.4	97217118.7	41.. 75	442858.9	2154270.4
7.. 41	6615048.6	90602070.1	42.. 76	379844.5	1774425.9
8.. 42	6217828.6	84384241.5	43.. 77	322917.9	1451508.0
9.. 43	5853984.7	78530256.8	44.. 78	273099.2	1178408.8
10.. 44	5518560.8	73011696.0	45.. 79	230556.6	947852.18
11.. 45	5204318.1	67807377.9	46.. 80	192544.91	755307.27
12.. 46	4906283.1	62901094.8	47.. 81	160194.79	595112.58
13.. 47	4624444.0	58276650.8	48.. 82	131473.64	463638.94
14.. 48	4358939.4	53917711.4	49.. 83	107117.63	356521.31
15.. 49	4110048.9	49807662.5	50.. 84	86260.42	270260.89
16.. 50	3873764.5	45933898.0	51.. 85	68836.00	201424.89
17.. 51	3650142.3	42283755.7	52.. 86	53306.73	147618.16
18.. 52	3435669.1	38848086.6	53.. 87	41093.82	106524.34
19.. 53	3230659.7	35617426.9	54.. 88	30469.75	76054.59
20.. 54	3034812.6	32582614.3	55.. 89	22471.17	53583.42
21.. 55	2848529.4	29734084.9	56.. 90	16647.46	36935.96
22.. 56	2671197.4	27062887.6	57.. 91	11611.39	25324.569
23.. 57	2502035.5	24560852.0	58.. 92	7808.208	17516.361
24.. 58	2338938.1	22221913.9	59.. 93	5274.832	12241.529
25.. 59	2178973.1	20042940.8	60.. 94	3650.776	8590.753
26.. 60	2021036.2	18021904.6	61.. 95	2544.604	6046.149
27.. 61	1864386.1	16157518.5	62.. 96	1808.702	4237.447
28.. 62	1715100.0	14442418.5	63.. 97	1310.149	2927.298
29.. 63	1573635.3	12868783.2	64.. 98	942.334	1984.964
30.. 64	1440932.8	11427850.4	65.. 99	683.614	1301.3496
31.. 65	1316968.4	10110882.0	66..100	515.7118	785.6378
32.. 66	1201893.7	8908988.3	67..101	369.2899	416.3479
33.. 67	1095339.7	7813648.6	68..102	242.3746	173.9733
34.. 68	996344.9	6817303.7	69..103	133.3361	40.6372

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 &35	13588137.	141937865.3	35 & 70	826770.9	5150484.6
1..36	10941341.3	130996524.0	36.. 71	746182.3	4414302.3
2..37	9570447.3	121426076.7	37.. 72	668134.4	3746167.9
3..38	8511543.9	112914532.8	38.. 73	592169.6	3153998.3
4..39	7785719.0	105128813.8	39.. 74	519053.0	2634945.3
5..40	7194883.6	97943930.2	40.. 75	448694.2	2186251.1
6..41	6697310.3	91246619.9	41.. 76	385150.1	1801101.0
7..42	6273005.2	84973614.7	42.. 77	327626.6	1473474.4
8..43	5892752.8	79080861.9	43.. 78	277140.5	1196333.9
9..44	5546751.6	73534110.3	44.. 79	234019.6	962314.31
10..45	5227786.5	68306323.8	45.. 80	195439.08	766875.23
11..46	4930047.9	63376275.9	46.. 81	162603.99	604271.24
12..47	4647682.4	58728593.5	47.. 82	133422.05	470849.19
13..48	4381645.7	54346947.8	48.. 83	108631.41	362217.78
14..49	4132832.5	50214065.3	49.. 84	87457.12	274760.66
15..50	3897694.3	46316171.0	50.. 85	69772.23	204988.43
16..51	3674793.5	42641377.5	51.. 86	54586.90	150401.53
17..52	3459589.6	39181787.9	52.. 87	41728.12	108673.41
18..53	3253310.6	35928477.3	53.. 88	30969.86	77703.55
19..54	3056240.7	32872236.6	54.. 89	22857.36	54846.19
20..55	2868785.2	30003451.4	55.. 90	16951.27	37894.92
21..56	2689880.2	27313571.2	56.. ■	11836.28	26058.640
22..57	2519658.4	24793912.8	57.. 92	7974.859	18063.781
23..58	2353529.1	22438383.7	58.. 93	5405.683	12678.098
24..59	2194539.8	20243843.9	59.. 94	3757.002	8921.096
25..60	2035927.3	18207916.6	60.. 95	2632.772	6288.324
26..61	1878224.9	16329691.7	61.. 96	1875.829	4412.495
27..62	1728527.3	14601164.4	62.. 97	1361.064	3051.431
28..63	1587444.0	13013720.4	63.. 98	979.811	2071.620
29..64	1455234.8	11558485.6	64.. 99	711.929	1359.6908
30..65	1330409.3	10225076.3	65..100	537.8087	821.8821
31..66	1214286.6	9013789.7	66..101	385.6819	436.2002
32..67	1106549.4	7907240.3	67..102	253.6831	182.5671
33..68	1006461.0	6900779.3	68..103	139.8312	42.7359
34..69	913523.8	5987255.5			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 &36	12931499.	133746438.4	10 & 46	4952279.5	63839318.8
1..37	10409307.0	123336931.4	11.. 47	4670194.6	59169124.2
2..38	9102460.9	114234470.5	12.. 48	4403664.0	54765460.2
3..39	8092786.6	106141683.9	13.. 49	4154411.3	50611048.9
4..40	7397354.0	98744329.9	14.. 50	3919549.3	▓▓▓▓▓▓▓
5..41	6818696.6	91925633.3	15.. 51	3697684.0	42993815.6
6..42	6351013.4	85574619.9	16.. 52	3482954.0	39510861.6
7..43	5945044.6	79629575.3	17.. 53	3275961.6	36234900.0
8..44	5553485.1	74046090.2	18.. 54	3077668.7	33157231.3
9..45	5254491.9	68179598.3	19.. 55	▓▓▓▓▓▓▓	30268190.3

TABLE XXIX.   **693**

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-Six Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 & 56	2709007.9	27559182.4	44 & 80	198374.58	778527.90
21..57	2537281.2	25021901.2	45.. 81	165048.12	613479.78
22..58	2372120.1	22649781.1	46.. 82	135428.60	478051.18
23..59	2210106.6	20439674.5	47.. 83	110241.30	367809.88
24..60	2050472.1	18389202.4	48.. 84	86693.06	279116.82
25..61	1892063.8	16497138.6	49.. 85	70740.19	208376.63
26..62	1741357.7	14755780.9	50.. 86	55329.32	153047.31
27..63	1599871.8	13155909.1	51.. 87	42333.17	110714.14
28..64	1468004.5	11687904.6	52.. 88	31447.91	79266.23
29..65	1343614.3	10344290.3	53.. 89	23232.53	56033.70
30..66	1226679.5	9117610.8	54.. 90	17242.60	38791.10
31..67	1117959.2	7999651.6	55.. 91	12052.29	26738.810
32..68	1016761.0	6982890.6	56.. 92	8129.316	18609.494
33..69	922798.9	6060091.7	57.. 93	5521.056	13088.438
34..70	835251.4	5224840.3	58.. 94	3850.201	9238.237
35..71	753915.5	4470924.8	59.. 95	2709.377	6528.860
36..72	675259.7	3795665.1	60.. 96	1940.825	4588.035
37..73	598668.3	3196996.8	61.. 97	1411.577	3176.458
38..74	524914.6	2672082.2	62.. 98	1017.889	2158.569
39..75	454087.4	2217994.8	63.. 99	740.243	1418.3264
40..76	390225.0	1827769.8	64..100	560.0837	858.2427
41..77	332202.9	1495566.9	65..101	402.2073	456.0354
42..78	281181.9	1214385.0	66..102	' 264.8914	191.1440
43..79	237482.5	976902.48	67..103	146.3263.	44.8177

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	12302928.	125939152.6	21 & 58	2388711.2	22856560.3
1..38	9900491.4	116038661.2	22.. 59	2225673.4	20630886.9
2..39	8654631.1	107384030.1	23.. 60	2065016.9	18565870.0
3..40	7689104.6	99694925.5	24.. 61	1905580.8	16660289.2
4..41	7020338.1	92674587.4	25.. 62	1754188.0	14906101.2
5..42	6466123.1	86208464.3	26.. 63	1611747.2	13294354.0
6..43	6018974.5	80189489.8	27.. 64	1479497.3	11814856.7
7..44	5633032.6	74556457.2	28.. 65	1355404.6	10459452.1
8..45	5289289.8	69267167.4	29.. 66	1238854.9	9220597.2
9..46	4977577.5	64289589.9	30.. 67	1129368.9	8091228.3
10..47	4691254.4	59598335.5	31.. 68	1027244.9	7063983.4
11..48	4424994.3	55173341.2	32.. 69	932242.8	6131740.6
12..49	4175287.8	50998053.4	33.. 70	843731.9	5288008.7
13..50	3939966.8	47058086.6	34.. 71	761648.7	4526360.0
14..51	3718226.7	43339859.9	35.. 72	682258.0	3844102.0
15..52	3504649.5	39835210.4	36.. 73	605052.9	3239049.1
16..53	3298085.8	36537124.6	37.. 74	530675.2	2708373.9
17..54	3099096.8	33438027.8	38.. 75	459215.3	2249158.6
18..55	2909296.9	30528730.9	39.. 76	394915.3	1854243.3
19..56	2728135.6	27800595.3	40.. 77	336580.1	1517663.2
20..57	2555323.8	25245271.5	41.. 78	285109.3	1232553.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4 per Cent.)

Difference of Age Thirty-Seven Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
42 &79	240945.6	991608.26	55 & 92	8277.676	19096.599
43..80	201310.10	790298.16	56.. 93	5627.988	13468.611
44..81	167527.16	622771.00	57.. 94	3932.377	9536.234
45..82	137464.25	485306.75	58.. 95	2776.588	6759.646
46..83	111899.25	373407.50	59.. 96	1997.296	4762.350
47..84	90007.46	283400.04	60.. 97	1460.487	3301.863
48..85	71739.88	211660.16	61.. 98	1055.666	2246.197
49..86	56096.90	155563.26	62.. 99	769.010	1477.1873
50..87	42908.92	112654.34	63..100	582.3588	894.8285
51..88	31903.88	80750.46	64..101	418.8661	475.9624
52..89	23591.14	57159.32	65..102	276.2413	199.73i1
53..90	17525.61	39633.71	66..103	152.8216	46.8995
54..91	12259.43	27374.275			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 &38	11701325.	118499632.5	33 & 71	769381.9	4580765.2
1..39	9413399.4	109086233.1	34.. 72	689256.1	3891509.1
2..40	8222923.3	100863309.8	35.. 73	611323.4	3280185.7
3..41	7297219.2	93566090.6	36.. 74	536334.5	2743851.2
4..42	6657338.5	86908752.1	37.. 75	464254.7	2279596.5
5..43	6128066.1	80780686.0	38.. 76	399375.1	1880221.4
6..44	5703082.3	75077603.7	39.. 77	340625.6	1539595.8
7..45	5336226.6	69741377.1	40.. 78	288865.9	1250729.9
8..46	5010541.6	64730835.5	41.. 79	244310.9	1006418.99
9..47	4715219.0	60015616.5	42.. 80	204245.62	802173.37
10..48	4444948.3	55570668.2	43.. 81	170006.19	632167.18
11..49	4195511.9	51375156.3	44.. 82	139528.98	492638.20
12..50	3959765.6	47415390.7	45.. 83	113581.22	379056.98
13..51	3737595.5	43677795.2	46.. 84	91361.11	287695.87
14..52	3524119.8	40153675.4	47.. 85	72803.05	214892.82
15..53	3318629.7	36835045.7	48.. 86	56889.66	158003.16
16..54	3120026.5	33715019.2	49.. 87	43504.20	114498.96
17..55	2929552.6	30785466.6	50.. 88	32337.79	82161.17
18..56	2747263.1	28038203.5	51.. 89	23933.20	58227.97
19..57	2573366.3	25464837.2	52.. 90	17796.13	40431.84
20..58	2406697.2	23059140.0	53.. 91	12460.64	27971.197
21..59	2241240.1	20817899.9	54.. 92	8419.939	19551.258
22..60	2079561.7	18738338.2	55.. 93	5730.699	13820.559
23..61	1919097.9	16819240.3	56.. 94	4008.539	9812.020
24..62	1766720.1	15052520.2	57.. 95	2835.849	6976.171
25..63	1623622.6	13428897.6	58.. 96	2046.844	4929.327
26..64	1490479.3	11938418.3	59.. 97	1502.983	3426.344
27..65	1366015.8	10572402.5	60.. 98	1092.245	2334.099
28..66	1249726.0	9322676.5	61.. 99	797.550	1536.5485
29..67	1140578.5	8182098.0	62..100	604.9902	931.5583
30..68	1037729.0	7144369.0	63..101	435.5247	496.0336.
31..69	941855.3	6202513.7	64..102	287.6827	208.3509
32..70	852366.6	5350147.1	65..103	159.3696	48.9813

TABLE XXIX. 695

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Thirty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 39	11125635.	111411857.1	33 & 72	696254.3	3938027.9
1..40	8943842.9	102468014.2	34.. 73	617594.0	3320433.9
2..41	7803831.3	94664182.9	35.. 74	541892.9	2778541.0
3..42	6919902.8	87744280.1	36.. 75	469205.9	2309335.1
4..43	6309284.6	81434995.5	37.. 76	403757.9	1905577.2
5..44	5806448.5	75628547.0	38.. 77	344472.3	1561104.9
6..45	5402585.5	70225961.5	39.. 78	292338.0	1268766.9
7..46	5055004.8	65170956.7	40.. 79	247530.1	1021236.83
8..47	4746445.7	60424511.0	41.. 80	207098.45	814138.38
9..48	4467654.7	55956856.3	42.. 81	172485.24	641653.14
10..49	4214431.1	51742425.2	43.. 82	141593.70	500059.44
11..50	3978945.7	47763479.5	44.. 83	115287.21	384772.23
12..51	3756377.4	44007102.1	45.. 84	92734.37	292037.86
13..52	3542477.4	40464624.7	46.. 85	73897.96	218139.90
14..53	3337066.5	37127558.2	47.. 86	57732.75	160407.15
15..54	3139461.4	33988096.8	48.. 87	44119.00	116288.15
16..55	2949337.4	31038759.4	49.. 88	32786.43	83501.72
17..56	2766390.8	28272368.6	50.. 89	24258.71	59243.01
18..57	2591408.8	25680959.8	51.. 90	18054.17	41188.84
19..58	2422683.2	23258276.6	52.. 91	12652.97	28535.868
20..59	2257177.5	21001099.1	53.. 92	8558.137	19977.731
21..60	2094106.5	18906992.6	54.. 93	5829.189	14148.542
22..61	1932614.9	16974377.7	55.. 94	4081.694	10066.848
23..62	1779252.1	15195125.6	56.. 95	2890.774	7176.074
24..63	1635222.0	13559903.6	57.. 96	2090.529	5085.545
25..64	1501461.2	12058442.4	58.. 97	1540.267	3545.278
26..65	1376155.3	10682287.1	59.. 98	1124.025	2421.253
27..66	1259509.8	9422777.3	60.. 99	825.185	1596.0681
28..67	1150587.2	8272190.1	61..100	627.4435	968.6246
29..68	1048028.9	7224161.2	62..101	452.4499	516.1747
30..69	951467.8	6272693.4	63..102	299.1242	217.0505
31..70	861155.5	5411537.9	64..103	165.9704	51.0801
32..71	777255.7	4634282.2			

Difference of Age Forty Years.

Ages.	D.	N.	Ages.	D.	N
0 & 40	10570669.	104664037.3	12 & 52	3560278.8	40767553.4
1..41	8488008.2	96176029.1	13.. 53	3354449.8	37413103.6
2..42	7400319.5	88775709.6	14.. 54	3156902.8	34256200.8
3..43	6558121.7	82217587.9	15.. 55	2967708.9	31288491.9
4..44	5978156.1	76239431.8	16.. 56	2785073.6	28503418.3
5..45	5500505.4	70738926.4	17.. 57	2609451.3	25893967.0
6..46	5117866.4	65621060.0	18.. 58	2439669.2	23454297.8
7..47	4788565.3	60832494.7	19.. 59	2273114.9	21181182.9
8..48	4497241.9	56335252.8	20.. 60	2108997.7	19072185.2
9..49	4235959.9	52099292.9	21.. 61	1946131.9	17126053.3
10..50	3996888.4	48102404.5	22.. 62	1791784.2	15334269.1
11..51	3774572.3	44327832.2	23.. 63	1646821.2	13687447.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4 per Cent.)

Difference of Age Forty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
24 & 64	1512187.8	12175260.1	44 & 84	94127.24	296434.40
25..65	1386294.9	10788965.2	45.. 85	75008.72	221425.68
26..66	1268858.9	9520106.3	46.. 86	58601.00	162824.68
27..67	1159594.9	8360511.4	47.. 87	44772.83	118051.85
28..68	1057225.5	7303285.9	48.. 88	33249.76	84802.09
29..69	960911.6	6342374.3	49.. 89	24595.26	60206.83
30..70	869944.3	5472430.0	50.. 90	18299.71	41907.12
31..71	785270.1	4687159.9	51.. 91	12836.44	29070.682
32..72	703379.7	3983780.2	52.. 92	8690.239	20380.443
33..73	623864.5	3359915.7	53.. 93	5924.864	14455.579
34..74	547451.3	2812464.4	54.. 94	4151.843	10303.736
35..75	474068.5	2338395.9	55.. 95	2943.530	7360.206
36..76	408063.8	1930332.1	56.. 96	2131.019	5229.187
37..77	348252.6	1582079.5	57.. 97	1573.141	3656.046
38..78	295639.3	1286440.2	58.. 98	1151.909	2504.137
39..79	250505.2	1035934.98	59.. 99	849.195	1654,9415
40..80	209827.24	826107.74	60..100	649.1839	1005.7576
41..81	174894.45	651213.29	61..101	469.2420	536.5156
42..82	143658.44	507554.85	62..102	310.7487	225.7669
43..83	116993.21	390561.64	63..103	172.5712	53.1957

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	10031921.	98248472.5	23 & 64	1522914.3	12288941.4
1..42	8049119.9	90199352.6	24.. 65	1396198.8	10892742.6
2..43	7013421.6	83185931.0	25.. 66	1278207.9	9614534.7
3..44	6213933.7	76971997.3	26.. 67	1168202.2	8446332.5
4..45	5663165.6	71308831.7	27.. 68	1065502.3	7380830.2
5..46	5210625.9	66098205.8	28.. 69	969343.6	6411486.6
6..47	4848113.7	61250092.1	29.. 70	878579.0	5532907.6
7..48	4537150.1	56712942.0	30.. 71	793284.4	4739623.2
8..49	4264012.7	52448929.3	31.. 72	710632.3	4028990.9
9..50	4017305.9	48431623.4	32.. 73	630249.2	3398741.7
10..51	3791593.4	44640030.0	33.. 74	553009.7	2845732.0
11..52	3577523.9	41062506.1	34.. 75	478931.3	2366800.7
12..53	3371306.4	37691199.7	35.. 76	412292.9	1954507.8
13..54	3173347.6	34517852.1	36.. 77	351966.5	1602541.3
14..55	2984196.2	31533655.9	37.. 78	298883.8	1303657.5
15..56	2802422.0	28731233.9	38.. 79	253334.2	1050323.28
16..57	2627074.3	26104159.6	39.. 80	212349.30	837973.98
17..58	2456655.2	23647504.4	40.. 81	177198.91	660775.07
18..59	2289052.2	21358452.2	41.. 82	145665.00	515110.07
19..60	2123888.8	19234563.4	42.. 83	118699.22	396410.85
20..61	1959970.8	17274592.6	43.. 84	95520.12	300890.73
21..62	1804316.3	15470276.3	44.. 85	76135.35	224755.38
22..63	1658420.6	13811855.7	45.. 86	59481.85	165273.53

TABLE XXIX.

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Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Forty-One Years—continued.

Ages.	D.	N.	Ages.	D.	N.
46 & 87	45446.18	119827.35	55 & 96	2169.910	5360.807
47..88	33742.52	86084.83	56.. 97	1603.609	3757.198
48..89	24942.83	61142.00	57.. 98	1176.493	2530.705
49..90	18553.59	42588.41	58.. 99	870.261	1710.4443
50..91	13011.02	29577.388	59..100	668.0731	1042.3712
51..92	8816.244	20761.144	60..101	485.5008	556.8704
52..93	6016.319	14744.825	61..102	322.2815	234.5889
53..94	4219.989	10524.836	62..103	179.2776	55.3113
54..95	2994.119	7530.717			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	9513202.	92154327.9	31 & 73	636747.8	3437109.1
1..43	7628301.9	84526026.0	32.. 74	558669.2	2878439.9
2..44	6645338.3	77880687.7	33.. 75	483794.0	2394645.9
3..45	5886520.0	71994167.7	34.. 76	416521.8	1978124.1
4..46	5364713.8	66629453.9	35.. 77	355614.2	1622509.9
5..47	4935983.9	61693470.0	36.. 78	302071.2	1320438.7
6..48	4593572.0	57099898:0	37.. 79	256114.4	1064324.34
7..49	4301851.1	52798046.9	38.. 80	214747.32	849577.02
8..50	4043910.7	48754136.2	39.. 81	179328.79	670248.23
9..51	3810962.2	44943174.0	40.. 82	147584.32	522663.91
10..52	3593656.4	41349517.6	41.. 83	120357.16	402306.75
11..53	3357636.1	37961881.5	42.. 84	96913.01	305393.74
12..54	3189294.1	34772587.4	43.. 85	77261.99	228131.75
13..55	2999741.3	31772846.1	44.. 86	60375.28	167756.47
14..56	2817991.0	28954855.1	45.. 87	46129.29	121627.18
15..57	2643438.4	26311416.7	46.. 88	34249.98	87377.20
16..58	2473246.2	23838170.5	47.. 89	25312.48	62064.72
17..59	2304989.6	21533180.9	48.. 90	18815.79	43248.93
18..60	2138779.9	19394401.0	49.. 91	13191.53	30057.399
19..61	1973809.6	17420591.4	50.. 92	8936.150	21121.249
20..62	1817146.7	15603444.7	51.. 93	6103.553	15017.696
21..63	1670019.8	13933424.9	52.. 94	4285.128	10732.568
22..64	1533640.9	12399784.0	53.. 95	3043.263	7689.305
23..65	1406102.6	10993681.4	54.. 96	2207.202	5482.103
24..66	1287339.5	9706341.9	55.. 97	1632.875	3849.228
25..67	1176809.6	8529532.3	56.. 98	1199.280	2649.948
26..68	1073411.2	7456121.1	57.. 99	888.834	1761.1136
27..69	976932.4	6479188.7	58..100	684.6458	1076.4678
28..70	886238.5	5592900.2	59..101	499.6274	576.8404
29..71	801158.2	4791742.0	60..102	333.4484	243.3920
30..72	717885.1	4073856.9	61..103	185.9312	57.4608

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.—
(Carlisle 4 per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 43	9015840.	86369671.5	31 & 74	564429.7	2910763.5
1..44	7227947.9	79141723.6	32.. 75	488745.1	2432018.4
2..45	6295193.7	72846529.9	33.. 76	420750.9	2001267.5
3..46	5576297.5	67270232.4	34.. 77	359261.9	1642005.6
4..47	5081950.2	62188282.2	35.. 78	305201.8	1336803.8
5..48	4676828.8	57511453.4	36.. 79	258845.7	1077958.05
6..49	4355347.0	53156106.4	37.. 80	217104.00	860854.05
7..50	4079796.1	49076310.3	38.. 81	181353.91	679500.14
8..51	3836200.4	45240109.9	39.. 82	149358.25	530141.89
9..52	3612014.1	41628095.8	40.. 83	121943.02	408198.87
10..53	3402912.3	38225183.5	41.. 84	98266.65	309932.22
11..54	3204742.2	35020441.3	42.. 85	78388.64	231543.58
12..55	3014815.4	32005625.9	43.. 86	61268.70	170274.88
13..56	2832670.3	29172955.6	44.. 87	46822.16	123452.72
14..57	2658124.2	26514831.4	45.. 88	34764.79	88687.93
15..58	2488652.2	24026179.2	46.. 89	25693.16	62994.77
16..59	2320556.3	21705622.9	47.. 90	19094.64	43900.13
17..60	2153671.0	19551951.9	48.. 91	13377.96	30522.168
18..61	1987648.5	17564303.4	49.. 92	9060.123	21462.045
19..62	1829977.2	15734326.2	50.. 93	6186.566	15275.479
20..63	1681895.3	14052430.9	51.. 94	4347.260	10928.219
21..64	1544367.3	12508063.6	52.. 95	3090.237	7837.982
22..65	1416006.3	11092057.3	53.. 96	2243.431	5594.551
23..66	1296471.0	9795586.3	54.. 97	1660.938	3933.613
24..67	1185216.8	8610369.5	55.. 98	1221.166	2712.447
25..68	1081320.2	7529049.3	56.. 99	906.050	1806.3974
26..69	984183.9	6544865.4	57..100	699.2582	1107.1392
27..70	893227.1	5651638.3	58..101	512.0214	595.1178
28..71	808188.4	4843449.9	59..102	343.1508	251.9670
29..72	725010.4	4118439.5	60..103	192.3736	59.5934
30..73	643246.3	3475193.2			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	8542664.	80879988.7	14 & 58	2502478.0	24210681.2
1..45	6847105.6	74032883.1	15.. 59	2335011.2	21875670.0
2..46	5963433.8	68069449.3	16.. 60	2168215.8	19707454.2
3..47	5282331.6	62787067.7	17.. 61	2001487.4	17705966.8
4..48	4815131.4	57971936.3	18.. 62	1842807.5	15863159.3
5..49	4434286.1	53537650.2	19.. 63	1693770.7	14169388.6
6..50	4130530.5	49407119.7	20.. 64	1555349.3	12614039.3
7..51	3870242.5	45536877.2	21.. 65	1425910.1	11188129.2
8..52	3635934.8	41900942.4	22.. 66	1305602.7	9882526.5
9..53	3420295.6	38480646.8	23.. 67	1193624.0	8688902.5
10..54	3219193.7	35261453.1	24.. 68	1089045.2	7599857.3
11..55	3029418.4	32232034.7	25.. 69	991435.5	6608421.8
12..56	2846904.8	29385129.9	26.. 70	899857.3	5708564.5
13..57	2671970.7	26713159.2	27.. 71	814515.6	4894048.9

TABLE XXIX. 699

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Forty-Four Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
28 & 72	731372.4	4162676.5	44 & 88	35286.96	90017.39
29..73	649630.9	3513045.6	45.. 89	26079.35	63938.04
30..74	570190.2	2942855.4	46.. 90	19381.80	44556.24
31..75	493784.6	2449070.8	47.. 91	13576.21	30980.026
32..76	425056.8	2024014.0	48.. 92	9188.160	21791.866
33..77	362909.6	1661104.4	49.. 93	6272.393	15519.473
34..78	308332.4	1352772.0	50.. 94	4406.386	11113.087
35..79	261528.4	1091243.60	51.. 95	3135.044	7978.043
36..80	219419.34	871824.26	52.. 96	2278.059	5699.984
37..81	183344.14	688480.12	53.. 97	1688.200	4011.784
38..82	151044.93	537435.19	54.. 98	1242.155	2769.629
39..83	123408.74	414026.45	55.. 99	922.586	1847.0433
40..84	99561.44	314465.01	56..100	712.8014	1134.2419
41..85	79463.53	234981.48	57..101	522.9495	611.2924
42..86	62162.12	172819.36	58..102	351.6631	259.6293
43..87	47515.01	125304.35	59..103	197.9710	61.6583

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 45	8092549.	75671582.3	30 & 75	498824.1	2475937.0
1..46	6466259.6	69185322.7	31.. 76	429439.7	2046497.3
2..47	5649112.8	63536209.9	32.. 77	366623.6	1679873.7
3..48	5005039.4	58531170.5	33.. 78	311462.9	1368410.8
4..49	4565416.2	53965754.3	34.. 79	264210.9	1104199.86
5..50	4205394.8	49760359.5	35.. 80	221693.32	882506.54
6..51	3918371.1	45841988.4	36.. 81	185299.43	697207.11
7..52	3668199.8	42173788.6	37.. 82	152702.52	544504.59
8..53	3442946.6	38730842.0	38.. 83	124802.37	419702.22
9..54	3235638.5	35495203.5	39.. 84	100758.14	318944.08
10..55	3043079.3	32452124.2	40.. 85	80530.83	238413.25
11..56	2860694.5	29591429.7	41.. 86	63030.37	175352.88
12..57	2685397.8	26906031.9	42.. 87	48207.89	127174.99
13..58	2515513.8	24390518.1	43.. 88	35809.13	91365.86
14..59	2347983.5	22042534.6	44.. 89	26471.07	64894.79
15..60	2181721.7	19860812.9	45.. 90	19673.13	45221.66
16..61	2015004.5	17845808.4	46.. 91	13780.38	31441.282
17..62	1855637.9	15990170.5	47.. 92	9324.326	22116.956
18..63	1705646.1	14284524.4	48.. 93	6361.034	15755.922
19..64	1566331.3	12718193.1	49.. 94	4467.517	11288.405
20..65	1436049.7	11282143.4	50.. 95	3177.683	8110.722
21..66	1314734.3	9967409.1	51.. 96	2311.090	5799.632
22..67	1202031.3	8765377.8	52.. 97	1714.258	4085.374
23..68	1096770.3	7668607.5	53.. 98	1262.542	2822.832
24..69	998518.3	6670089.2	54.. 99	938.441	1884.3910
25..70	906487.5	5763601.7	55..100	725.8100	1158.5810
26..71	820561.5	4943040.2	56..101	533.0780	625.5030
27..72	737098.1	4205942.1	57..102	359.1686	266.3344
28..73	655331.4	3550610.7	58..103	202.8821	63.4523
29..74	575849.6	2974761.1			

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 4 per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	
0 & 46	7666067.	70730041.8	29 & 75	503775.2	2502
1.. 47	6144381.3	64585660.5	30.. 76	433822.6	2068
2.. 48	5352516.0	59233144.5	31.. 77	370403.9	1698
3.. 49	4745475.5	54487669.0	32.. 78	314650.4	1383
4.. 50	4329756.2	50157912.8	33.. 79	266893.6	1116
5.. 51	3989390.0	46168522.8	34.. 80	223967.32	892
6.. 52	3713815.8	42454707.0	35.. 81	187219.81	705
7.. 53	3473499.1	38981207.9	36.. 82	154331.04	551
8.. 54	3257066.6	35724141.3	37.. 83	126171.99	425
9.. 55	3053624.4	32665516.9	38.. 84	101895.98	323
10.. 56	2873594.5	29791922.4	39.. 85	81498.78	241
11.. 57	2698405.2	27093517.2	40.. 86	63860.88	177
12.. 58	2528154.7	24565362.5	41.. 87	48881.23	129
13.. 59	2360214.5	22205148.0	42.. 88	36331.30	92
14.. 60	2193842.4	20011305.6	43.. 89	26862.78	65
15.. 61	2027556.0	17983749.6	44.. 90	19968.61	44
16.. 62	1868170.0	16115579.6	45.. 91	13987.52	31
17.. 63	1717521.6	14398058.0	46.. 92	9464.555	25
18.. 64	1577313.2	12820744.8	47.. 93	6455.303	15
19.. 65	1446189.3	11374555.5	48.. 94	4530.651	11
20.. 66	1324083.3	10050472.2	49.. 95	3221.767	8
21.. 67	1210438.5	8840033.7	50.. 96	2342.521	5
22.. 68	1104495.3	7735538.4	51.. 97	1739.114	4
23.. 69	1005601.2	6729937.2	52.. 98	1282.030	5
24.. 70	912963.6	5816973.6	53.. 99	953.845	1
25.. 71	826607.4	4990366.2	54..100	738.2840	1
26.. 72	742569.4	4247796.8	55..101	542.8066	
27.. 73	660461.8	3587335.0	56..102	366.1250	
28.. 74	580902.8	3006432.2	57..103	207.2121	

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	
0 & 47	7262004.	66041809.1	16 & 63	1729121.0	145
1.. 48	5821781.4	60220027.7	17.. 64	1588295.1	129
2.. 49	5074931.8	55145095.9	18.. 65	1456328.9	114
3.. 50	4500521.2	50644574.7	19.. 66	1333432.4	101
4.. 51	4107363.9	46537210.8	20.. 67	1219045.9	89
5.. 52	3781127.3	42756083.5	21.. 68	1112220.4	78
6.. 53	3516693.9	39239389.6	22.. 69	1012684.1	67
7.. 54	3285969.5	35953420.1	23.. 70	919439.6	58
8.. 55	3078880.2	32874539.9	24.. 71	832512.9	50
9.. 56	2888273.9	29986266.0	25.. 72	748040.6	42
10.. 57	2710573.4	27275692.6	26.. 73	665364.4	36
11.. 58	2540400.4	24735292.2	27.. 74	585450.6	30
12.. 59	2372074.9	22363217.3	28.. 75	508195.8	25
13.. 60	2205270.4	20157946.9	29.. 76	438128.4	20
14.. 61	2038920.2	18119126.7	30.. 77	374184.1	17
15.. 62	1879806.9	16239319.8	31.. 78	317894.8	13

TABLE XXIX. 701

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Forty-Seven Years—*continued*.

Ages	D.	N.	Ages.	D.	N.
32 & 79	269624.9	1129355.90	45 & 92	9606.819	22777.436
33.. 80	226241.31	903114.59	46.. 93	6552.385	16225.051
34.. 81	189140.20	713974.39	47.. 94	4597.794	11627.257
35.. 82	155930.48	558043.91	48.. 95	3267.298	8359.959
36.. 83	127517.56	430526.35	49.. 96	2375.021	5984.938
37.. 84	103014.21	327512.14	50.. 97	1762.767	4222.171
33.. 85	82419.13	245093.01	51.. 98	1300.619	2921.552
39.. 86	64628.46	180464.55	52.. 99	968.568	1952.9837
40.. 87	49525.30	130939.25	53..100	750.4017	1202.5820
41.. 88	36838.77	94100.48	54..101	552.1356	650.4464
42.. 89	27254.49	66845.99	55..102	372.8068	277.6396
43.. 90	20264.12	46581.87	56..103	211.2254	66.4142
44.. 91	14197.61	32384.255			

Difference of Age Forty-Eight Years.

Ages	D.	N.	Ages.	D.	N.
0 & 48	6880725.	61592663.6	28 & 76	441972.9	2113137.2
1.. 49	5519861.0	56072802.6	29.. 77	377898.2	1735239.0
2.. 50	4812971.4	51259831.2	30.. 78	321139.2	1414099.8
3.. 51	4269357.6	46990473.6	31.. 79	272405.0	1141694.80
4.. 52	3892942.2	43097531.4	32.. 80	228556.64	913138.16
5.. 53	3580432.7	39517098.7	33.. 81	191060.58	722077.58
6.. 54	3326832.4	36190266.3	34.. 82	157529.91	564547.67
7.. 55	3106202.0	33084064.3	35.. 83	128839.11	435708.56
8.. 56	2907401.6	30176662.7	36.. 84	104112.82	331595.74
9.. 57	2724420.0	27452242.7	37.. 85	83323.63	248272.11
10.. 58	2551856.1	24900386.6	38.. 86	65358.30	182913.81
11.. 59	2383564.6	22516822.0	39.. 87	50120.59	132793.22
12.. 60	2216352.2	20300469.8	40.. 88	37324.17	95469.05
13.. 61	2049440.8	18251029.0	41.. 89	27635.18	67833.87
14.. 62	1890250.3	16360778.7	42.. 90	20559.61	47274.26
15.. 63	1739891.7	14620887.0	43.. 91	14407.71	32866.552
16.. 64	1599021.7	13021865.3	44.. 92	9751.114	23115.438
17.. 65	1466468.4	11555396.9	45.. 93	6650.875	16464.563
18.. 66	1342781.3	10212615.6	46.. 94	4666.942	11797.621
19.. 67	1227653.2	8984962.4	47.. 95	3315.718	8481.903
20.. 68	1120129.3	7864833.1	48.. 96	2408.584	6073.319
21.. 69	1019767.0	6845066.1	49.. 97	1787.222	4286.097
22.. 70	925915.7	5919150.4	50.. 98	1318.309	2967.788
23.. 71	838418.2	5080732.2	51.. 99	982.611	1985.1773
24.. 72	753384.8	4327347.4	52..100	761.9847	1223.1926
25.. 73	670266.8	3657080.6	53..101	561.1979	661.9947
26.. 74	589796.2	3067284.4	54..102	379.2140	282.7807
27.. 75	512174.3	2555110.1	55..103	215.0802	67.7005

Preparatory Table for finding the Values of Annuities, &c. on Two Jo
(Carlisle 4 per Cent.)

Difference of Age Forty-Nine Years.

Ages.	D.	N.	Ages.	D.	
0 & 49	6523887.	57366350.2	28 & 77	381214.2	1753
1.. 50	5234933.8	52131416.4	29.. 78	324326.6	142(
2.. 51	4565759.3	47565657.1	30.. 79	276185.2	115:
3.. 52	4046479.4	43519177.7	31.. 80	230913.32	92:
4.. 53	3686312.8	39832864.9	32.. 81	193015.88	73(
5.. 54	3387129.9	36445735.0	33.. 82	159129.34	57(
6.. 55	3144829.2	33300905.8	34.. 83	130160.66	44(
7.. 56	2933201.6	30367704.2	35.. 84	105191.81	33:
8.. 57	2742462.5	27625241.7	36.. 85	84212.24	25I
9.. 58	2564892.0	25060349.7	37.. 86	66075.56	18:
10.. 59	2394313.1	22666036.6	38.. 87	50686.59	134
11.. 60	2227087.7	20438948.9	39.. 88	37772.80	9(
12.. 61	2059739.4	18379209.5	40.. 89	27999.32	6:
13.. 62	1900096.8	16479112.7	41.. 90	20846.78	4:
14.. 63	1749557.8	14729554.9	42.. 91	14617.80	3:
15.. 64	1608982.1	13120572.8	43.. 92	9895.409	2:
16.. 65	1476372.3	11644200.5	44.. 93	6750.771	1(
17.. 66	1352130.5	10292070.0	45.. 94	4737.091	1]
18.. 67	1236260.6	9055809.4	46.. 95	3365.584	£
19.. 68	1128038.3	7927771.1	47.. 96	2444.278	(
20.. 69	1027018.5	6900752.6	48.. 97	1812.479	4
21.. 70	932391.6	5968361.0	49.. 98	1336.598	3
22.. 71	844323.5	5124037.5	50.. 99	995.976	2
23.. 72	758728.9	4365308.6	51..100	773.0331	1
24.. 73	675055.2	3690253.4	52..101	569.8603	
25.. 74	594141.8	3096111.6	53..102	385.4381	
26.. 75	515976.2	2580135.4	54..103	218.7767	
27.. 76	445433.1	2134702.3			

Difference of Age Fifty Years.

Ages.	D.	N.	Ages.	D.	
0 & 50	6187134.	53349755.2	17 & 67	1244868.0	912
1.. 51	4966048.2	48383707.0	18..68	1135947.2	798
2.. 52	4327407.7	44056299.3	19..69	1034270.0	695
3.. 53	3831700.4	40224598.9	20..70	939021.9	601
4.. 54	3487293.8	36737305.1	21..71	850228.8	516
5.. 55	3201828.0	33535477.1	22..72	764072.9	440
6.. 56	2969677.6	30565799.5	23..73	679843.6	372
7.. 57	2766798.9	27799000.6	24..74	598386.4	312
8.. 58	2581877.9	25217122.7	25..75	519777.9	260
9.. 59	2406544.1	22810578.6	26..76	448739.4	215
10.. 60	2237130.5	20573448.1	27..77	384198.7	177
11.. 61	2069716.2	18503731.9	28..78	327172.7	144
12.. 62	1909645.1	16594086.8	29..79	277916.5	116
13.. 63	1758671.5	14835415.3	30..80	233270.00	93
14.. 64	1617920.8	13217494.5	31..81	195006.09	73
15.. 65	1485568.7	11731925.8	32..82	160757.86	57
16.. 66	1361262.1	10370663.7	33..83	131482.21	44

TABLE XXIX. 703

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fifty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
34 & 84	106270.81	339432.71	44 & 94	4808.242	12147.375
35..85	85084.99	254347.72	45.. 95	3416.172	8731.203
36..86	66780.23	187567.49	46.. 96	2481.039	6250.164
37..87	51242.84	136324.65	47.. 97	1839.339	4410.825
38..88	38199.36	98125.29	48.. 98	1355.486	3055.339
39..89	28335.85	69789.44	49.. 99	1009.793	2045.5461
40..90	21121.46	48667.98	50..100	783.5469	1261.9992
41..91	14821.99	33845.991	51..101	578.1231	683.8761
42..92	10039.705	23806.286	52..102	391.3877	292.4884
43..93	6850.669	16955.617	53..103	222.3676	70.1208

Difference of Age Fifty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 51	5869340.	49530098.3	27 & 78	329734.0	1458753.3
1..52	4706799·9	44823298.4	28.. 79	280355.3	1178397.97
2..53	4097717.5	40725580.9	29.. 80	235585.33	942812.64
3..54	3624832.0	37100748.9	30.. 81	196996.30	745816.34
4..55	3296512.1	33804236.8	31.. 82	162415.46	583400.88
5..56	3023501.9	30780734.9	32.. 83	132827.78	450573.10
6..57	2801205.5	27979529.4	33.. 84	107349.80	343223.30
7..58	2604789.2	25374740.2	34.. 85	85957.74	257265.56
8..59	2422481.5	22952258.7	35.. 86	67472.32	189793.24
9..60	2248558.6	20703700.1	36.. 87	51789.32	136003.92
10..61	2079049.5	18624650.6	37.. 88	38618.56	99385.36
11..62	1918894.9	16705755.7	38.. 89	28655.85	70729.51
12..63	1767509.0	14938246.7	39.. 90	21375.34	49354.17
13..64	1626348.8	13311897.9	40.. 91	15017.29	34336.883
14..65	1493821.8	11818076.1	41.. 92	10179.936	24156.947
15..66	1369741.4	10448334.7	42.. 93	6950.565	17206.382
16..67	1253275.3	9195059.4	43.. 94	4879.393	12326.989
17..68	1143856.2	8051203.2	44.. 95	3467.482	8859.507
18..69	1041521.5	7009681.7	45.. 96	2518.331	6341.176
19..70	945652.1	6064029.6	46.. 97	1867.001	4474.175
20..71	856274.8	5207754.8	47.. 98	1375.575	3098.600
21..72	769416.9	4438337.9	48.. 99	1024.063	2074.5371
22..73	684632.1	3753705.8	49..100	794.4171	1280.1200
23..74	602631.0	3151074.8	50..101	585.9859	694.1341
24..75	523491.3	2627583.5	51..102	397.0625	297.0716
25..76	452045.8	2175537.7	52..103	225.7999	71.2717
26..77	387050.4	1788487.3			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 52	5562936.	45900865.5	26 & 78	332181.6	1472830.8
1..53	4456972.4	41443893.1	27.. 79	282550.1	1190280.66
2..54	3876487.2	37567405.9	28.. 80	237652.59	952628.07
3..55	3426526.0	34140879.9	29.. 81	198951.60	753676.47
4..56	3112912.4	31027967.5	30.. 82	164073.05	589603.42
5..57	2851976.2	28175991.3	31.. 83	134197.39	455406.03
6..58	2637181.3	25538810.0	32.. 84	108448.40	346957.63
7..59	2443978.4	23094831.6	33.. 85	86830.49	260127.14
8..60	2263449.7	20831381.9	34.. 86	68164.40	191962.74
9..61	2089670.0	18741711.9	35.. 87	52326.05	139636.69
10..62	1927548.0	16814163.9	36.. 88	39030.41	100606.28
11..63	1776070.4	15038093.5	37.. 89	28970.33	71635.95
12..64	1634521.5	13403572.0	38.. 90	21616.71	50019.24
13..65	1501603.3	11901968.7	39.. 91	15197.79	34821.446
14..66	1377351.1	10524617.6	40.. 92	10314.070	24507.376
15..67	1261081.9	9263535.7	41.. 93	7047.648	17459.728
16..68	1151581.1	8111954.6	42.. 94	4950.545	12509.183
17..69	1048773.1	7063181.5	43.. 95	3518.793	8990.390
18..70	952282.2	6110899.3	44.. 96	2556.157	6434.233
19..71	862320.7	5248578.6	45.. 97	1895.064	4539.169
20..72	774888.2	4473690.4	46.. 98	1396.262	3142.907
21..73	689420.5	3784269.9	47.. 99	1039.239	2103.6678
22..74	606875.6	3177394.3	48..100	805.6438	1298.0240
23..75	527204.4	2650189.9	49..101	594.1154	703.9086
24..76	455275.2	2194914.7	50..102	402.4629	301.4457
25..77	389902.3	1805012.4	51..103	229.0739	72.3718

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 53	5267666.	42455621.4	19 & 72	780359.5	4508543.0
1..54	4216346.4	38239275.0	20.. 73	694322.9	3814220.1
2..55	3664413.8	34574861.2	21.. 74	611120.1	3203100.0
3..56	3235685.3	31339175.9	22.. 75	530917.9	2672182.1
4..57	2936314.6	28402861.3	23.. 76	458504.7	2213677.4
5..58	2684979.2	25717882.1	24.. 77	392687.7	1820989.7
6..59	2474370.5	23243511.6	25.. 78	334629.0	1486360.7
7..60	2263535.4	20959976.2	26.. 79	284647.3	1201713.39
8..61	2103508.8	18856467.4	27.. 80	239513.13	962200.26
9..62	1937394.6	16919072.8	28.. 81	200697.41	761502.85
10..63	1784079.4	15134993.4	29.. 82	165701.57	595801.28
11..64	1642438.7	13492554.7	30.. 83	135567.00	460234.28
12..65	1509149.1	11983405.6	31.. 84	109566.63	350667.65
13..66	1384525.8	10598879.8	32.. 85	87719.09	262948.56
14..67	1268087.9	9330791.9	33.. 86	68856.50	194092.06
15..68	1158754.5	8172037.4	34.. 87	52962.78	141229.28
16..69	1055855.9	7116181.5	35.. 88	39434.91	101794.37
17..70	958912.4	6157269.1	36.. 89	29279.28	72515.09
18..71	868366.6	5288902.5	37.. 90	21853.94	50661.15

TABLE XXIX. 765

ry Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fifty-Three Years—*continued.*

D.	N.	Ages.	D.	N.
15369.42	35291.729	45 & 98	1417.249	2596.471
10455.049	24853.687	46.. 99	1054.869	2133.7515
7140.509	17713.178	47..100	817.5832	1316.1653
5017.553	12093.445	48..101	602.5115	713.6568
3570.106	9123.379	49..102	408.0463	305.6105
2593.981	6529.398	50..103	232.1694	73.4211
1923.528	4605.870			

Difference of Age Fifty-Four Years.

D.	N.	Ages.	D.	N.
4983272.	39187970.9	25 & 79	286744.6	1212690.18
3985680.2	35202290.7	26.. 80	241390.98	971399.20
3460323.8	31741966.9	27.. 81	202206.07	769130.57
3052122.4	28689844.5	28.. 82	167155.60	601974.97
2764379.1	25925465.4	29.. 83	136912.57	465062.40
2519217.6	23406247.8	30.. 84	110684.86	354377.54
2311932.4	21094315.4	31.. 85	88623.58	265753.96
2122175.2	18972140.2	32.. 86	69561.16	196192.90
1950225.1	17021915.1	33.. 87	53399.50	142793.30
1793193.1	15228722.0	34.. 88	39839.41	103953.80
1649845.1	13578876.9	35.. 89	29582.72	73371.17
1516459.0	12062417.9	36.. 90	22087.01	51284.16
1391465.1	10670934.6	37.. 91	15538.08	35746.082
1274693.6	9396241.0	38.. 92	10555.916	25190.166
1165192.0	8231049.0	39.. 93	7226.337	17963.829
1062432.9	7168616.1	40.. 94	5085.834	12877.995
965388.4	6203227.7	41.. 95	3619.971	9258.024
874412.6	5328815.1	42.. 96	2631.808	6626.216
785830.7	4542984.4	43.. 97	1951.993	4674.223
699225.3	3843759.1	44.. 98	1438.536	3235.687
615465.8	3204293.3	45.. 99	1070.725	2164.962
534631.2	2693562.1	46..100	829.8790	1335.083
461734.2	2231927.9	47..101	611.4404	723.6429
395473.3	1836454.6	48..102	413.8127	309.8302
337019.8	1499434.8	49..103	235.4106	74.4196

Difference of Age Fifty-Five Years.

D.	N.	Ages.	D.	N.
4710649.	36090435.7	8 & 63	1805068.5	15370579.0
3763697.0	32326738.7	9.. 64	1658273.1	13662326.5
3264017.0	29062721.7	10.. 65	1523297.3	12139029.2
2873405.8	26189315.9	11.. 66	1398223.3	10740805.9
2593715.6	23595600.3	12.. 67	1281099.1	9459706.9
2363835.3	21241765.0	13.. 68	1171261.6	8288445.2
2148565.7	19093199.3	14.. 69	1068335.3	7220109.9
1967531.2	17125668.1	15.. 70	971401.9	6248708.0

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Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fifty-Five Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
16 & 71	880318.0	5368390.0	33 & 88	40243.91	104092.97
17..72	791302.1	4577087.9	34.. 89	29886.16	74206.81
18..73	704127.8	3872960.1	35.. 90	22315.91	51890.90
19..74	619811.5	3253148.6	36.. 91	15703.79	36187.112
20..75	538432.9	2714715.7	37.. 92	10671.759	25515.353
21..76	464963.5	2249752.2	38.. 93	7307.943	18207.410
22..77	398258.7	1851493.5	39.. 94	5146.964	13060.446
23..78	339410.3	1512083.2	40.. 95	3667.668	9392.778
24..79	288793.3	1223289.87	41.. 96	2668.568	6724.210
25..80	243068.82	980221.05	42.. 97	1980.457	4743.753
26..81	203770.02	776451.03	43.. 98	1459.823	3283.930
27..82	168464.24	607986.79	44.. 99	1086.806	2197.1242
28..83	138113.98	469872.81	45..100	842.3530	1354.7712
29..84	111783.46	358089.35	46..101	620.6360	734.1352
30..85	89528.06	268561.29	47..102	419.9454	314.1898
31..86	70278.42	198282.87	48..103	238.7375	75.4523
32..87	53945.99	144336.88			

Difference of Age Fifty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 56	4448289.	33156497.7	24 & 80	244805.33	988733.43
1..57	3550179.8	29606317.9	25.. 81	205271.40	783462.03
2..58	3072893.0	26533424.9	26.. 82	169714.70	613747.33
3..59	2696011.2	23837413.7	27.. 83	139195.25	474552.08
4..60	2423442.6	21413971.1	28.. 84	112764.36	361787.72
5..61	2187507.6	19226463.5	29.. 85	90416.67	271371.05
6..62	1991998.5	17234465.0	30.. 86	70995.68	200375.37
7..63	1821086.6	15413378.4	31.. 87	54502.23	145873.14
8..64	1669255.0	13744123.4	32.. 88	40655.76	105217.38
9..65	1531078.9	12213044.5	33.. 89	30189.60	75027.78
10..66	1404528.4	10808516.1	34.. 90	22544.81	52482.97
11..67	1287304.4	9521211.7	35.. 91	15866.54	36616.428
12..68	1177147.4	8344064.3	36.. 92	10785.570	25830.858
13..69	1073900.4	7270163.9	37.. 93	7388.141	18442.717
14..70	976798.6	6293365.3	38.. 94	5205.087	13237.630
15..71	885801.5	5407563.8	39.. 95	3711.753	9525.877
16..72	796646.1	4610917.7	40.. 96	2703.731	6822.146
17..73	709030.3	3901887.4	41.. 97	2008.120	4814.026
18..74	624157.2	3277730.2	42.. 98	1481.111	3352.915
19..75	542234.7	2735495.5	43.. 99	1102.890	2230.0253
20..76	468269.9	2267225.6	44..100	855.0052	1375.0201
21..77	401044.1	1866181.5	45..101	629.9650	745.0551
22..78	341801.0	1524380.5	46..102	426.2610	318.794'
23..79	290841.7	1233538.76	47..103	242.2756	76.5185

TABLE XXIX. 707

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4 per Cent.)

Difference of Age Fifty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 57	4195934.	30379413.0	24 & 81	206737.89	790221.28
1..58	3342299.4	27037113.6	25.. 82	170965.16	619256.12
2..59	2883182.9	24153930.7	26.. 83	140228.46	479027.66
3..60	2519022.9	21634907.8	27.. 84	113647.17	365380.49
4..61	2252196.2	19382711.6	28.. 85	91210.08	274170.41
5..62	2028102.8	17354608.8	29.. 86	71700.34	202470.07
6..63	1843732.8	15510876.0	30.. 87	55058.48	147411.59
7..64	1684067.9	13826808.1	31.. 88	41074.97	106336.62
8..65	1541218.5	12285589.6	32.. 89	30498.56	75838.06
9..66	1411703.2	10873886.4	33.. 90	22773.71	53064.35
10..67	1293109.4	9580777.0	34.. 91	16029.29	37035.062
11..68	1182849.2	8397927.8	35.. 92	10897.348	26137.714
12..69	1079296.9	7318630.9	36.. 93	7466.933	18670.781
13..70	981886.8	6336744.1	37.. 94	5262.210	13408.571
14..71	890722.6	5446021.5	38.. 95	3753.669	9654.902
15..72	801608.5	4644413.0	39.. 96	2736.228	6918.674
16..73	713818.7	3930594.3	40.. 97	2034.580	4884.094
17..74	628502.7	3302091.6	41.. 98	1501.799	3382.295
18..75	546036.4	2756055.2	42.. 99	1118.971	2263.3241
19..76	471576.3	2284478.9	43..100	867.6574	1395.6667
20..77	403896.0	1880582.9	44..101	639.4270	756.2397
21..78	344191.6	1536391.3	45..102	432.6681	323.5716
22..79	292890.3	1243501.00	46..103	245.9191	77.6525
23..80	246541.83	996959.17			

Difference of Age Fifty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 58	3950242.	27755030.5	23 & 81	208204.36	796749.44
1..59	3135957.1	24619073.4	24.. 82	172186.56	624562.88
2..60	2693906.8	21925166.6	25.. 83	141261.67	483301.21
3..61	2341022.5	19584144.1	26.. 84	114490.75	368810.46
4..62	2088077.5	17496066.6	27.. 85	91924.15	276886.31
5..63	1877149.8	15618916.8	28.. 86	72329.51	204556.80
6..64	1705010.1	13913906.7	29.. 87	55604.97	148951.83
7..65	1554895.2	12359011.5	30.. 88	41494.18	107457.65
8..66	1421052.3	10937959.2	31.. 89	30813.04	76644.61
9..67	1299715.0	9638244.2	32.. 90	23006.78	53637.83
10..68	1188183.1	8450061.1	33.. 91	16192.04	37445.789
11..69	1084524.7	7365536.4	34.. 92	11009.126	26436.663
12..70	986821.0	6378715.4	35.. 93	7544.318	18892.345
13..71	895362.5	5483352.9	36.. 94	5318.329	13574.016
14..72	806061.9	4677291.0	37.. 95	3794.864	9779.152
15..73	718265.1	3959025.9	38.. 96	2767.128	7012.024
16..74	632747.4	3326278.5	39.. 97	2059.034	4952.990
17..75	549838.1	2776440.4	40.. 98	1521.587	3431.403
18..76	474882.6	2301557.8	41.. 99	1134.601	2296.8015
19..77	406747.8	1894810.0	42..100	880.3097	1416.4918
20..78	346639.1	1548170.9	43..101	648.8892	767.6026
21..79	294938.8	1253232.13	44..102	439.1668	328.4358
22..80	248278.33	1004953.80	45..103	249.6155	78.8203

TABLE XXIX.

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 4 per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	N
0 & 59	3706367.	25283434.5	23 & 82	173407.95	62958(
1..60	2930086.9	22353347.6	24.. 83	142270.86	48741;
2..61	2503548.9	19849798.7	25.. 84	115334.32	37208|
3..62	2170431.0	17679367.7	26.. 85	92606.48	27947.
4..63	1932660.6	15746707.1	27.. 86	72895.77	206578
5..64	1735912.7	14010794.4	28.. 87	56092.90	150485
6..65	1574231.1	12436563.3	29.. 88	41906.03	108579
7..66	1433662.5	11002900.8	30.. 89	31127.50	77459
8..67	1308322.4	9694578.4	31.. 90	23244.00	54208
9..68	1194252.8	8500325.6	32.. 91	16357.75	37850
10..69	1089415.3	7410910.3	33.. 92	11120.905	26729
11..70	991600.9	6419309.4	34.. 93	7621.703	19107
12..71	899861.9	5519447.5	35.. 94	5373.446	13734
13..72	810260.7	4709186.8	36.. 95	3835.334	9899
14..73	722255.5	3986931.3	37.. 96	2797.496	7101
15..74	636688.8	3350242.5	38.. 97	2082.287	5019
16..75	553551.4	2796691.1	39.. 98	1539.877	3479
17..76	478188.9	2318502.2	40.. 99	1149.551	2329
18..77	409599.6	1908902.6	41..100	892.6056	1437
19..78	349086.7	1559815.9	42..101	658.3514	779
20..79	297036.1	1262779.81	43..102	445.6657	333
21..60	250014.83	1012764.96	44..103	253.3647	80
22..81	209670.83	803094.15			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 60	3463050.	██████████	22 & 82	174629.34	634666
1..61	2723039.8	██████████	23.. 83	██████.04	491386
2..62	2321113.9	17922092.6	24.. 84	116158.28	375228
3..63	2008884.4	15913208.2	25.. 85	93288.81	281939
4..64	1787247.0	14125961.2	26.. 86	73436.86	208502
5..65	1602763.5	12523197.7	27.. 87	56532.04	151970
6..66	1451491.0	11071706.7	28.. 88	42273.75	109697
7..67	1319932.4	9751774.3	29.. 89	31436.47	78260
8..68	1202161.7	8549612.6	30.. 90	23481.23	██████
9..69	1094980.4	7454632.2	31.. 91	██████.██	38252
10..70	996072.4	6458559.8	32.. 92	11234.714	27018
11..71	904220.6	5554339.2	33.. 93	████.███	██████
12..72	814332.5	4740006.7	34.. 94	5428.564	13890
13..73	726017.8	██████.█	35.. 95	████.███	10015
14..74	640225.9	3373763.0	36.. 96	2827.329	7188
15..75	556999.6	2816763.4	37.. 97	2105.138	5083
16..76	481418.4	2335345.0	38.. 98	1557.266	3525
17..77	412451.4	1922893.6	39.. 99	1163.367	2382
18..78	351534.1	1571339.5	40..100	███.████	1458
19..79	299133.3	1272226.16	41..101	667.5469	790
20..80	251792.67	1020433.49	42..102	452.1643	███
21..81	211137.30	809296.19	43..103	257.1140	81

TABLE XXX. 769

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)
Difference 0.

Common Age	D.	N.	Common Age	D.	N.
0	100000000.	825933158.6	52	1853652.3	16634324.2
1	68505761.8	757427396.8	53	1720311.4	15114012.8
2	55413420.8	702013976.0	54	1593493.0	13520519.8
3	46365795.9	655648180.1	55	1473780.5	12046739.3
4	41066029.3	614582150.8	56	1360215.5	10686523.8
5	37072603.7	577509547.1	57	1252649.1	9433874.7
6	34224326.7	543285220.4	58	1149131.8	8284742.9
7	31950955.6	511334264.8	59	1047055.6	7237687.3
8	30039573.7	481294691.1	60	946108.4	6291578.9
9	28369010.8	452925680.3	61	845742.9	5445836.0
10	26872132.4	426053547.9	62	752436.0	4693400.0
11	25484600.2	400568947.7	63	667172.0	4026228.0
12	24152631.7	376416316.0	64	590535.8	3435692.2
13	22882018.4	353534297.6	65	521050.3	2914641.9
14	21670312.2	331863985.4	66	458481.6	2456160.3
15	20508634.2	311355351.2	67	402236.6	2053923.7
16	19383257.2	291972094.0	68	351502.2	1702421.5
17	18300551.5	273671542.5	69	305843.1	1396578.4
18	17271153.7	256400388.8	70	264633.0	1131945.4
19	16298078.7	240102310.1	71	227755.8	904189.6
20	15378315.9	224723994.2	72	193050.8	711138.8
21	14509012.0	210214982.2	73	160423.1	550715.7
22	13692023.5	196522958.7	74	130467.4	420248.3
23	12919774.7	183603184.0	75	103349.4	316698.9
24	12189871.9	171413312.1	76	80907.8	235991.7
25	11500048.2	159913263.9	77	62299.5	173692.2
26	10844436.9	149068827.0	78	47495.4	126196.8
27	10225091.6	138843735.4	79	36096.4	90100.433
28	9633350.9	129210384.5	80	26846.177	63254.256
29	9058837.5	120151547.0	81	19816.701	43437.555
30	8499168.1	111652358.9	82	14227.880	29209.675
31	7969668.6	103682670.3	83	10053.654	19156.021
32	7471620.0	96211050.3	84	6936.542	12219.479
33	7005749.4	89205300.9	85	4697.159	7522.320
34	6569976.1	82635324.8	86	3057.251	4465.069
35	6160038.8	76475286.0	87	1903.120	2561.949
36	5774464.5	70700821.5	88	1118.775	1443.174
37	5409801.0	65291020.5	89	651.639	791.535
38	5065063.0	60225957.5	90	386.361	405.174
39	4739305.4	55486652.1	91	200.815	204.35895
40	4429131.2	51058520.9	92	98.04465	106.31430
41	4127947.3	46930573.6	93	48.63766	57.67664
42	3842109.0	43088464.6	94	25.53811	32.13853
43	3571733.6	39516731.0	95	13.74659	18.39194
44	3318972.7	36197758.3	96	7.73200	10.65994
45	3082748.9	33115009.4	97	4.53174	6.12820
46	2863275.4	30251734.0	98	2.62337	3.50483
47	2659384.6	27592349.4	99	1.54979	1.9550356
48	2471081.7	25121267.7	100	.9927870	.9622486
49	2299227.1	22822040.6	101	.5747127	.3875359
50	2140417.0	20681623.6	102	.2805940	.1069419
51	1993647.1	18687976.5	103	.0966640	.0102779

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c, on Two Joint Lives, (Carlisle 4½ per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	80966507.	773489109.5	52 & 53	1746865.7	15600714.4
1.. 2	60271622.8	713217486.7	53.. 54	1619647.3	13981067.1
2.. 3	49584757.5	663632729.2	54.. 55	1499109.4	12481957.7
3.. 4	42685666.8	620947062.4	55.. 56	1385039.4	11096918.3
4.. 5	38168909.8	582778152.6	56.. 57	1276910.4	9820007.9
5.. 6	34844629.7	547933522.9	57.. 58	1173657.8	8646350.1
6.. 7	32348283.3	515585239.6	58.. 59	1073029.5	7573320.6
7.. 8	30306142.7	485279096.9	59.. 60	973637.2	6599683.4
8.. 9	28556885.0	456722211.9	60.. 61	875047.3	5724636.1
9..10	27009404.8	429712807.1	61.. 62	780361.4	4944274.7
10..11	25599520.6	404113286.5	62.. 63	693099.5	4251175.2
11..12	24269620.9	379843665.6	63.. 64	614021.7	3637153.5
12..13	22997003.5	356846662.1	64.. 65	542631.2	3094522.3
13..14	21783196.3	335063465.8	65.. 66	478126.2	2616396.1
14..15	20622571.1	314440894.7	66.. 67	420091.0	2196305.1
15..16	19503996.2	294936898.5	67.. 68	367829.6	1828475.5
16..17	18424144.3	276512754.2	68.. 69	320741.5	1507734.0
17..18	17391402.9	259121351.3	69.. 70	278300.0	1229434.0
18..19	16412348.5	242709002.8	70.. 71	240158.8	989275.2
19..20	15486898.4	227222104.4	71.. 72	205122.1	784153.1
20..21	14612185.1	212609919.3	72.. 73	172151.6	612001.5
21..22	13787787.8	198822131.5	73.. 74	141522.6	470478.9
22..23	13010774.3	185811357.2	74.. 75	113591.7	356887.2
23..24	12276339.6	173535017.6	75.. 76	89451.9	267435.3
24..25	11582205.4	161952812.2	76.. 77	69450.9	197984.4
25..26	10924339.1	151028473.1	77.. 78	53212.1	144772.3
26..27	10300989.9	140727483.2	78.. 79	40504.1	104268.23
27..28	9708768.5	131018714.7	79.. 80	30451.96	73816.271
28..29	9138328.9	121880385.8	80.. 81	22563.100	51253.171
29..30	8583547.3	113296838.5	81.. 82	16425.842	34827.329
30..31	8051026.5	105245812.0	82.. 83	11699.678	23127.651
31..32	7548660.9	97697151.1	83.. 84	8169.123	14958.528
32..33	7077445.6	90619705.5	84.. 85	5583.814	9374.714
33..34	6636682.6	83983022.9	85.. 86	3707.021	5667.693
34..35	6223224.5	77759798.4	86.. 87	2359.612	3308.081
35..36	5834309.1	71925489.3	87.. 88	1427.402	1880.679
36..37	5467494.6	66457994.7	88.. 89	835.249	1045.430
37..38	5120648.0	61337346.7	89.. 90	492.474	552.956
38..39	4792825.5	56544521.2	90.. 91	271.578	281.3783
39..40	4481355.9	52063165.3	91.. 92	137.2625	144.11578
40..41	4182338.3	47880827.0	92.. 93	67.55230	76.56348
41..42	3895774.2	43985052.8	93.. 94	34.47645	42.08703
42..43	3623816.7	40361236.1	94.. 95	18.32879	23.75824
43..44	3368086.3	36993149.8	95.. 96	10.08522	13.67302
44..45	3129051.9	33864097.9	96.. 97	5.79056	7.88246
45..46	2906313.6	30957784.3	97.. 98	3.37290	4.50956
46..47	2699379.7	28258404.6	98.. 99	1.97246	2.537095
47..48	2507702.3	25750702.3	99..100	1.213407	1.3236883
48..49	2331719.6	23418982.7	100..101	.7389163	.5847720
49..50	2170111.2	21248871.5	101..102	.3928316	.1919404
50..51	2020762.1	19228109.4	102..103	.1611066	.0308338
51..52	1880529.3	17347580.1			

TABLE XXX. 711

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 2	71234633.	728045624.1	51 & 53	1772194.4	16070210.8
1.. 3	53931949.4	674113674.7	52.. 54	1644647.7	14425563.1
2.. 4	45649134.4	628464540.3	53.. 55	1523714.6	12901948.5
3.. 5	39674285.5	588790254.8	54.. 56	1408843.2	11493005.3
4.. 6	35875050.7	552915204.1	55.. 57	1300214.0	10192791.3
5.. 7	32934583.8	519980620.3	56.. 58	1196389.2	8996402.1
6.. 8	30683016.3	489297604.0	57.. 59	1095931.1	7900471.0
7.. 9	28810296.7	460487307.3	58.. 60	997789.8	6902681.2
8..10	27188275.1	433299032.2	59.. 61	900508.3	6002172.9
9..11	25732292.2	407566740.0	60.. 62	807400.4	5194772.5
10..12	24379062.6	383187677.4	61.. 63	718822.8	4475949.7
11..13	23106395.2	360079282.2	62.. 64	637883.8	3838065.9
12..14	21892659.6	338186622.6	63.. 65	564212.0	3273853.9
13..15	20729997.1	317456625.5	64.. 66	497929.4	2775924.5
14..16	19612351.8	297844273.7	65.. 67	438090.9	2337833.6
15..17	18528909.0	279305364.7	66.. 68	384156.9	1953676.7
16..18	17508855.7	261796509.0	67.. 69	335640.0	1618036.7
17..19	16526618.5	245269890.5	68.. 70	291856.8	1326179.9
18..20	15595460.9	229674409.6	69.. 71	252561.9	1073618.0
19..21	14715358.2	214959051.4	70.. 72	216292.5	857325.5
20..22	13885832.3	201073219.1	71.. 73	182916.0	674409.5
21..23	13101773.8	187971445.3	72.. 74	151869.5	522540.0
22..24	12362807.2	175608638.1	73.. 75	123217.1	399322.9
23..25	11664362.6	163944275.5	74.. 76	98317.0	301005.9
24..26	11002383.5	152941892.0	75.. 77	76785.6	224220.3
25..27	10376888.2	142565003.8	76.. 78	59320.3	164900.0
26..28	9780834.2	132784169.6	77.. 79	45379.3	119520.68
27..29	9209871.1	123574298.5	78.. 80	34170.42	85350.26
28..30	8658868.0	114915430.5	79.. 81	25593.61	59756.648
29..31	8130937.3	106784493.2	80.. 82	18702.304	41054.344
30..32	7625701.8	99158791.4	81.. 83	13507.076	27547.268
31..33	7150422.2	92008369.2	82.. 84	9506.603	18040.665
32..34	6704601.8	85303767.4	83.. 85	6576.022	11464.643
33..35	6286410.3	79017357.1	84.. 86	4406.774	7057.869
34..36	5894153.7	73123203.4	85.. 87	2861.109	4196.760
35..37	5524157.9	67599045.5	86.. 88	1769.785	2426.975
36..38	5175257.8	62423787.7	87.. 89	1065.663	1361.312
37..39	4845423.1	57578364.6	88.. 90	631.238	730.074
38..40	4531963.1	53046401.5	89.. 91	346.167	383.9074
39..41	4232608.8	48813792.7	90.. 92	185.6312	198.2762
40..42	3947106.0	44866686.7	91.. 93	94.5732	103.70298
41..43	3674432.8	41192253.9	92.. 94	47.88396	55.81902
42..44	3417199.9	37775054.0	93.. 95	24.74387	31.07515
43..45	3175355.1	34599698.9	94.. 96	13.44696	17.62819
44..46	2949966.7	31649732.2	95.. 97	7.55290	10.07529
45..47	2739954.4	28909777.8	96.. 98	4.30982	5.76547
46..48	2545416.2	26364361.6	97.. 99	2.53601	3.229463
47..49	2366274.9	23998086.7	98..100	1.544335	1.685128
48..50	2200779.1	21797307.6	99..101	.903120	.7820081
49..51	2048796.5	19748511.1	100..102	.5050692	.2769389
50..52	1906105.9	17842405.2	101..103	.2255492	.0513897

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D	N.
0 & 3	63741815.	687965657.2	51 & 54	1668494.5	14853981.5
1 .. 4	49651282.4	638314374.8	52 .. 55	1547234.3	13306747.2
2 .. 5	42428686.9	595885687.9	53 .. 56	1431966.9	11874780.3
3 .. 6	37289957.0	558595730.9	54 .. 57	1322560.0	10552220.3
4 .. 7	33908521.0	524687209.9	55 .. 58	1218223.3	▮▮▮▮▮
5 .. 8	31239134.4	493448075.5	56 .. 59	1117157.2	8216839.8
6 .. 9	29168568.7	464279506.8	57 .. 60	1019085.7	7197754.1
7 ..10	27429541.9	436849964.9	58 .. 61	922847.0	6274907.1
8 ..11	25900691.5	410949273.4	59 .. 62	830893.2	5444013.9
9 ..12	24503599.5	386415673.9	60 .. ▮	743729.4	4700284.5
10 ..13	23212600.4	363233073.5	61 .. 64	661557.9	4038726.6
11 ..14	21998702.1	341234371.4	62 .. 65	586138.3	3452588.3
12 ..15	20834168.1	320400203.3	63 .. ▮	517732.4	3934855.9
13 ..16	19714515.5	300685687.8	64 .. 67	456235.9	3478620.0
14 ..17	18641902.9	282043784.9	65 .. 68	400617.0	3078003.0
15 ..18	17617919.0	264425865.9	66 .. 69	350538.5	1727464.5
16 ..19	16638230.9	247787635.0	67 .. 70	305413.7	1422050.8
17 ..20	15704063.4	232083571.6	68 .. 71	264864.9	1157185.9
18 ..21	14818531.2	217265040.4	69 .. 72	227463.0	929721.9
19 ..22	13983876.8	203281163.6	70 .. 73	192877.2	736845.7
20 ..23	13194940.0	190086223.6	71 .. 74	161365.7	575480.0
21 ..24	12449274.8	177636948.8	72 .. 75	132225.4	443254.6
22 ..25	11746519.7	165890429.1	73 .. 76	106648.0	336606.6
23 ..26	1 080427.8	154810001.3	74 .. 77	84395.4	252211.3
24 ..27	10451021.5	144358979.8	75 .. 78	63585.0	186626.2
25 ..28	9852900.1	134506079.7	76 .. 79	50588.5	136037.67
26. 29	9278233.6	125227846.1	77 .. 80	3~283.27	97754.40
27 ..30	8726656.6	116501189.5	78 .. 81	28718.83	69035.57
28 ..31	8202286.4	108298903.1	79 .. 82	21214.25	47921.324
29 ..32	7701391.1	100597512.0	80 .. 83	15379.024	32442.300
30 ..33	7223398.7	93374113.3	81 .. 84	10975.210	21467.090
31 ..34	6773733.9	86600379.4	82 .. 85	7652.674	13814.416
32 ..35	6350744.9	80249634.5	83 .. ▮	5189.831	8624.585
33 ..36	5953998.4	74295636.1	84 .. 87	3401.185	5223.400
34 ..37	5580821.2	68714814.9	85 .. 88	2145.925	3077.475
35 ..38	5228892.4	63485922.5	86 .. ▮	1321.279	1756.196
36 ..39	4897097.7	58588824.8	87 .. 90	805.373	950.834
37 ..40	4581697.8	54007127.0	88 .. 91	443.706	507.1177
38 ..41	4280406.9	49726720.1	89 .. 92	236.6145	270.5032
39 ..42	3994549.0	45732171.1	90 .. 93	127.8990	142.6049
40 ..43	3722848.2	42009322.9	91 .. 94	67.0376	75.56669
41 ..44	3464930.2	38544392.7	92 .. 95	34.36648	41.20015
42 ..45	3221658.4	35322734.3	93 .. 96	18.15340	23.04675
43 ..46	2993619.9	32329114.4	94 .. 97	10.07053	12.97622
44 ..47	2781108.7	29548005.7	95 .. 98	5.62151	7.35471
45 ..48	2583676.8	26964328.9	96 .. 99	3.24047	4.11424
46 ..49	2401862.0	24562466.9	97 ..100	1.985574	2.128570
47 ..50	2233394.0	22329072.9	98 ..101	1.149425	.979244
48 ..51	2077749.8	20251323.1	99 ..102	.617307	.361937
49 ..52	1932549.6	18318773.5	100 ..103	.2899919	.071944
50 ..53	1796297.5	16522476.0			

TABLE XXX. 713

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	58682523.	651337133.9	50 & 54	1691187.1	15266358.2
1.. 5	46148492.0	605188641.9	51.. 55	1569668.6	13696689.6
2.. 6	39878824.9	565309817.0	52.. 56	1454070.3	12242619.3
3.. 7	35245867.7	530063949.3	53.. 57	1344267.4	10898351.9
4.. 8	32162934.0	497901015.3	54.. 58	1239160.1	9659191.8
5.. 9	29697237.9	468203777.4	55.. 59	1137545.2	8521646.6
6..10	27770643.2	440433134.2	56.. 60	1038823.5	7482823.1
7..11	26130532.5	414302601.7	57.. 61	942543.3	6540279.8
8..12	24665875.0	389636726.7	58.. 62	851504.9	5688774.9
9..13	23331178.6	366305548.1	59.. 63	765369.6	4923405.3
10..14	22097903.3	344207644.8	60.. 64	684480.3	4238925.0
11..15	20935083.5	323272561.3	61.. 65	607891.9	3631033.1
12..16	19813583.5	303458977.8	62.. 66	537852.4	3093180.7
13..17	18739011.4	284719966.4	63.. 67	474380.7	2618800.0
14..18	17715796.4	267004170.0	64.. 68	417209.9	2201590.1
15..19	16741871.1	250262298.9	65.. 69	365558 3	1836031.8
16..20	15810120.8	234452178.1	66.. 70	318970.2	1517061.6
17..21	14921704.2	219530473.9	67.. 71	277167.9	1239893.7
18..22	14081921.2	205448552.7	68.. 72	238543.3	1001350.4
19..23	13288106.3	192160446.4	69.. 73	202838.4	798512.0
20..24	12537801.1	179622645.3	70.. 74	170153.3	628358.7
21..25	11828676.8	167793968.5	71.. 75	140493.4	487865.3
22..26	11158472.2	156635496.3	72.. 76	114445.0	373420.3
23..27	10525154.7	146110341.6	73.. 77	91346.8	281873.5
24..28	9923290.0	136187051.6	74.. 78	72084.9	209788.6
25..29	9346596.2	126840455.4	75.. 79	55931.1	153857.50
26..30	8791432.4	118049023.0	76.. 80	42677.82	111179.68
27..31	8266500.5	109782522.5	77.. 81	32175.50	79004.18
28..32	7768970.9	102013551.6	78.. 82	23804.71	55199.47
29..33	7295094.9	94718456.7	79.. 83	17444.62	37754.848
30..34	6842866.1	87875590.6	80.. 84	12496.266	25258.582
31..35	6416228.5	81459362.1	81.. 85	8834.880	16423.702
32..36	6014931.1	75444431.0	82.. 86	6039.530	10384.172
33..37	5637484.5	69806946.5	83.. 87	4005.554	6378.618
34..38	5282527.2	64524419.3	84.. 88	2550.999	3827.619
35..39	4947849.6	59576569.7	85.. 89	1602.097	2225.522
36..40	4630559.9	54946009.8	86.. 90	998.553	1226.969
37..41	4327381.0	50618628.8	87.. 91	566.107	660.8623
38..42	4039658.8	46578970.0	88.. 92	303.2848	357.5775
39..43	3767595.8	42811374.2	89.. 93	163.0262	194.5513
40..44	3510585.0	39300789.2	90.. 94	90.6603	103.8910
41..45	3266657.3	36034131.9	91.. 95	48.1131	55.77786
42..46	3037273.0	32996858.9	92.. 96	25.21305	30.56481
43..47	2822263.2	30174595.7	93.. 97	13.59522	16.96959
44..48	2622483.8	27552111.9	94.. 98	7.49534	9.47425
45..49	2437964.7	25114147.2	95.. 99	4.22670	5.247553
46..50	2266982.5	22847164.7	96..100	2.537122	2.710431
47..51	2108541.5	20738623.2	97..101	1.477832	1.232599
48..52	1959860.1	18778763.1	98..102	.785663	.446936
49..53	1821217.8	16957545.3	99..103	.354434	.0925015

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	54542598.	617489575.2	50 & 55	1591017.2	14071749.1
1.. 6	43375079.2	574114496.0	51.. 56	1475153.7	12596595.4
2.. 7	37692824.4	536421671.6	52.. 57	1363017.3	11231578.2
3.. 8	33431435.1	502990236.5	53.. 58	1259498.8	9972079.4
4.. 9	30575440.9	472414795.6	54.. 59	1157095.6	8814983.8
5..10	28273975.8	444140819.8	55.. 60	1057782.0	7757201.8
6..11	26455479.9	417685339.9	56.. 61	960798.5	6796403.3
7..12	24884758.3	392800581.6	57.. 62	869678.5	5926724.8
8..13	23485689.9	369314891.7	58.. 63	784355.8	5142369.0
9..14	22210787.3	347104104.4	59.. 64	704396.6	4437972.4
10..15	21029488.4	326074616.0	60.. 65	628954.9	3809017.5
11..16	19909555.6	306165060.4	61.. 66	557813.9	3251203.6
12..17	18833177.4	287331883.0	62.. 67	492816.0	2758387.6
13..18	17808080.7	269523802.3	63.. 68	433802.7	2324584.9
14..19	16834881.6	252688920.7	64.. 69	380699.0	1943885.9
15..20	15908602.6	236780318.1	65.. 70	332637.4	1611248.5
16..21	15022478.0	221757840.1	66.. 71	289470.9	1321777.6
17..22	14179965.7	207577874.4	67.. 72	249623.7	1072153.9
18..23	13381272.6	194196601.8	68.. 73	212719.3	859434.6
19..24	12626327.5	181570274.3	69.. 74	178940.9	680493.7
20..25	11912790.2	169657484.1	70.. 75	148144.3	532349.4
21..26	11236516.5	158420967.6	71.. 76	121601.1	410748.3
22..27	10599288.0	147821679.6	72.. 77	98239.7	312508.6
23..28	9993679.8	137827999.8	73.. 78	78193.1	234315.5
24..29	9413369.1	128414630.7	74.. 79	61474.2	172841.26
25..30	8856208.2	119558422.5	75.. 80	47185.04	125656.22
26..31	8327860.9	111230561.6	76.. 81	35868.94	89787.28
27..32	7829792.8	103400768.8	77.. 82	26669.91	63117.37
28..33	7359109.5	96041659.3	78.. 83	19574.77	43542.60
29..34	6910785.4	89130873.9	79.. 84	14174.67	29367.931
30..35	6481711.9	82649162.0	80.. 85	10059.309	19308.622
31..36	6076952.0	76572210.0	81.. 86	6972.533	12336.089
32..37	5695178.0	70877032.0	82.. 87	4661.359	7674.730
33..38	5336161.9	65540870.1	83.. 88	3004.295	4670.435
34..39	4998601.5	60542268.6	84.. 89	1904.515	2765.920
35..40	4678549.6	55863719.0	85.. 90	1210.779	1555.141
36..41	4373530.9	51490188.1	86.. 91	701.896	853.2454
37..42	4083990.9	47406197.2	87.. 92	386.9496	466.2958
38..43	3810142.6	43596054.6	88.. 93	208.9618	257.3340
39..44	3552781.2	40043273.4	89.. 94	115.5600	141.7740
40..45	3309699.7	36733573.7	90.. 95	65.0672	76.7063
41..46	3079696.5	33653877.2	91.. 96	35.2983	41.40848
42..47	2863417.7	30790459.5	92.. 97	18.88225	22.52623
43..48	2661290.9	28129168.6	93.. 98	10.11871	12.40762
44..49	2474583.1	25654585.5	94.. 99	5.63560	6.771924
45..50	2301037.8	23353527.7	95..100	3.309290	3.462634
46..51	2140252.4	21213275.3	96..101	1.888341	1.674293
47..52	1988904.7	19224370.6	97..102	1.010138	.664155
48..53	1846935.1	17377415.5	98..103	.451098	.118057
49..54	1714649.2	15662766.3			

TABLE XXX. 715

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4½ per Cent.)

Difference of Age Six Years

Ages.	D.	N.	Ages.	D.	N.
0 & 6	51264720.	585763495.7	49 & 55	1613089.5	14432014.1
1.. 7	40997427.4	544766068.3	50.. 56	1495216.8	12936797.3
2.. 8	35752424.1	509013644.2	51.. 57	1384809.3	11551988.0
3.. 9	31781331.3	477232312.9	52.. 58	1278940.0	10273048.0
4..10	29110090.2	448122222.7	53.. 59	1176087.2	9096960.8
5..11	26934975.6	421187247.1	54.. 60	1075961.4	8020999.4
6..12	25194213.8	395993033.3	55.. 61	978333.0	7042666.4
7..13	23694100.1	372298933.2	56.. 62	886522.5	6156143.9
8..14	22357878.5	349941054.7	57.. 63	801096.4	5355047.5
9..15	21136914.5	328804140.2	58.. 64	721870.4	4633177.1
10..16	19999335.8	308804804.4	59.. 65	647255.8	3985921.3
11..17	18924400.6	289880403.8	60.. 66	577141.8	3408779.5
12..18	17897568.5	271982835.3	61.. 67	511106.3	2897673.2
13..19	16922576.8	255060258.5	62.. 68	450661.0	2447012.2
14..20	15996983.8	239063274.7	63.. 69	395839.7	2051172.5
15..21	15116053.6	223947221.1	64.. 70	346414.6	1704757.9
16..22	14275730.1	209671491.0	65.. 71	301873.9	1402884.0
17..23	13474438.9	196197052.1	66.. 72	260704.0	1142180.0
18..24	12714853.7	183482198.4	67.. 73	222600.0	919580.0
19..25	11996903.5	171485294.9	68.. 74	187657.6	731922.4
20..26	11316418.8	160168876.1	69.. 75	155795.3	576127.1
21..27	10673421.2	149495454.9	70.. 76	128223.2	447903.9
22..28	10064069.6	139431385.3	71.. 77	104382.5	343521.4
23..29	9480141.8	129951243.5	72.. 78	83909.7	259611.7
24..30	8919477.6	121031765.9	73.. 79	66683.2	192928.48
25..31	8389220.9	112642545.0	74.. 80	51861.29	141067.19
26..32	7887911.3	104754633.7	75.. 81	39657.08	101410.11
27..33	7416722.6	97337911.1	76.. 82	29731.36	71678.75
28..34	6971427.5	90366483.6	77.. 83	21930.83	49747.92
29..35	6546046.4	83820437.2	78.. 84	15905.54	33842.38
30..36	6138972.8	77681464.4	79.. 85	11410.40	22431.979
31..37	5753901.9	71927562.5	80.. 86	7938.857	14493.122
32..38	5390771.7	66536790.8	81.. 87	5381.459	9111.663
33..39	5049353.4	61487437.4	82.. 88	3496.170	5615.493
34..40	4726539.1	56760898.3	83.. 89	2242.935	3372.558
35..41	4418856.8	52342041.5	84.. 90	1439.330	1933.228
36..42	4127545.1	48214496.4	85.. 91	851.074	1082.1539
37..43	3851955.9	44362540.5	86.. 92	479.7651	602.3898
38..44	3592902.2	40769638.3	87.. 93	266.6063	335.7825
39..45	3349481.3	37420157.0	88.. 94	148.1211	187.6614
40..46	3120275.4	34299881.6	89.. 95	82.9377	104.7237
41..47	2903412.7	31396468.9	90.. 96	47.7367	56.9870
42..48	2700098.0	28696370.9	91.. 97	26.4351	30.55188
43..49	2511201.6	26185169.3	92.. 98	14.05377	16.49811
44..50	2335619.9	23849549.4	93.. 99	7.60806	8.890047
45..51	2172422.7	21677126.7	94..100	4.412387	4.477660
46..52	2018816.3	19658310.4	95..101	2.463054	2.014606
47..53	1874326.4	17783984.0	96..102	1.290732	.723874
48..54	1738880.4	16045103.6	97..103	.579983	.143891

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 4½ per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	48454589.	555814724.8	49 & 56	1515960.2	13263327.8
1.. 8	38886908.4	516927816.4	50.. 57	1403643.6	11859684.2
2.. 9	33987761.3	482940055.1	51.. 58	1297484.0	10562200.2
3..10	30258187.4	452681867.7	52.. 59	1194240.9	9367959.3
4..11	27731493.2	424950374.5	53.. 60	1093621.5	8274337.8
5..12	25650849.5	399299525.0	54.. 61	995147.1	7279190.7
6..13	23988749.3	375310775.7	55.. 62	902701.5	6376489.2
7..14	22556280.8	352754494.9	56.. 63	816612.0	5559877.2
8..15	21276894.1	331477600.8	57.. 64	737277.2	4822600.0
9..16	20101499.6	311376101.2	58.. 65	663311.8	4159288.2
10..17	19009738.4	292366362.8	59.. 66	593934.8	3565353.4
11..18	17984259.9	274382102.9	60.. 67	528815.6	3036537.8
12..19	17007615.1	257374487.8	61.. 68	467386.5	2569151.3
13..20	16080314.5	241294173.3	62.. 69	411222.7	2157928.6
14..21	15200031.7	226094141.6	63.. 70	360191.8	1797736.8
15..22	14364654.1	211729487.5	64.. 71	314377.1	1483359.7
16..23	13565438.5	198164049.0	65.. 72	271874.4	1211485.3
17..24	12803380.1	185360668.9	66.. 73	232480.9	979004.4
18..25	12081016.7	173279652.2	67.. 74	196374.3	782630.1
19..26	11396321.4	161883330.8	68.. 75	163384.5	619245.6
20..27	10749319.5	151134011.3	69.. 76	134845.4	484400.2
21..28	10134459.4	140999551.9	70.. 77	110066.9	374333.3
22..29	9546914.6	131452637.3	71.. 78	89156.6	285176.7
23..30	8982746.9	122469890.4	72.. 79	71558.4	213618.30
24..31	8449154.2	114020736.2	73.. 80	56255.84	157362.46
25..32	7946029.9	106074706.3	74.. 81	43587.27	113775.19
26..33	7471775.0	98602931.3	75.. 82	32871.30	80903.89
27..34	7026005.5	91576925.8	76.. 83	24448.29	56455.60
28..35	6603488.0	84973437.8	77.. 84	17819.97	38635.63
29..36	6199905.4	78773532.4	78.. 85	12803.71	25831.92
30..37	5812625.7	72960906.7	79.. 86	9005.14	16826.782
31..38	5446356.7	67514550.0	80.. 87	6127.276	10699.506
32..39	5101028.1	62413521.9	81.. 88	4036.267	6663.239
33..40	4774528.8	57638993.1	82.. 89	2610.157	4053.082
34..41	4464182.6	53174810.5	83.. 90	1695.090	2357.992
35..42	4170321.5	49004489.0	84.. 91	1011.725	1346.2666
36..43	3893035.5	45111453.5	85.. 92	581.7316	764.5350
37..44	3632331.4	41479122.1	86.. 93	330.5558	433.9792
38..45	3387306.4	38091815.7	87.. 94	188.9320	244.9972
39..46	3157780.3	34934035.4	88.. 95	106.3069	138.6903
40..47	2941668.9	31992366.5	89.. 96	60.8475	77.8428
41..48	2737811.9	29254554.6	90.. 97	35.7503	42.0925
42..49	2547820.0	26706734.6	91.. 98	19.6753	22.4171
43..50	2370182.0	24336552.6	92.. 99	10.56674	11.8504
44..51	2205052.7	22131499.9	93..100	5.956722	5.8937
45..52	2049161.4	20082338.5	94..101	3.284072	2.6096
46..53	1902514.8	18179823.7	95..102	1.683564	.9260
47..54	1764650.2	16415173.5	96..103	.741090	.1856
48..55	1635885.5	14779288.0			

TABLE XXX. 717

...panatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Eight Years.

	D.	N	Ages.	D.	N.
8	45960180.	5X741024K.V	48 & 56	1537383.6	13577892.0
9	35967534.4	490448714.5	49.. 57	1423116.6	12154775.4
0	32358872.7	458089841.8	50.. 58	1315130.7	10839644.7
1	28925218.8	429264623.0	51.. 59	1211556.9	9628087.8
2	26409393.1	402855229.9	52.. 60	1110502.3	8517585.5
3	24423536.4	378431693.5	53.. 61	1011480.6	7506104.9
4	22836780.5	355594913.0	54.. 62	918215.7	6587859.2
	21465703.7	334129209.3	55.. 63	831515.2	5756374.0
	20234622.1	313894587.2	56.. 64	751556.8	5004817.2
	19106846.9	294787740.3	57.. 65	677468.9	4327348.3
	18065358.2	276722382.1	58.. 66	608668.2	3718680.1
	17089995.8	259632386.3	59.. 67	544202.4	3174477.7
	16161120.1	243471266.2	60.. 68	483887.1	2690896.6
	15279211.0	228192055.2	61.. 69	426484.6	2264412.0
	14444457.7	213747597.5	62.. 70	374189.5	1890222.5
	13649938.0	200097659.5	63.. 71	326680.0	1563942.5
	12889847.7	187207811.8	64.. 72	283135.0	1280207.5
	12165130.0	175042681.8	65.. 73	242442.1	1037765.4
	11476223.7	163566458.1	66.. 74	205090.9	832674.5
	10825217.8	152741240.3	67.. 75	170973.8	661700.7
	10206525.2	142534715.1	68.. 76	141414.1	520286.6
	9613687.3	132921027.8	69.. 77	115751.4	404535.2
	9046016.5	123875011.3	70.. 78	94011.8	310523.4
	8509087.3	115365924.0	71.. 79	76032.8	234490.56
	8002797.0	107363127.0	72.. 80	60368.68	174121.86
	7526827.5	99836299.5	73.. 81	47280.70	126841.18
	7078157.7	92758141.8	74.. 82	36128.99	90712.19
	6655185.5	86102956.3	75.. 83	27030.79	54581.90
	6254309.7	79848646.6	76.. 84	19865.53	43816.37
	5870319.2	73978327.4	77.. 85	14344.80	29471.57
	5501941.6	68476385.8	78.. 86	10104.76	19366.81
	5153625.5	63322760.3	79.. 87	6950.21	12416.569
	4823390.9	58499869.4	80.. 88	4595.655	7820.914
	4509508.4	53989861.0	81.. 89	3013.381	4807.533
	4212905.1	49776762.9	82.. 90	1972.617	2834.916
	3933381.7	45843381.2	83.. 91	1191.501	1643.4146
	3671068.9	42172312.3	84.. 92	691.5415	951.8731
	3424479.5	38747832.8	85.. 93	400.4109	551.0629
	3193440.5	35554392.3	86.. 94	234.3121	316.7507
	2977026.9	32577365.4	87.. 95	135.6329	181.1178
	2773886.2	29803479.2	88.. 96	77.9928	103.1255
	2583407.1	27220072.1	89.. 97	46.5691	57.5364
	2404744.2	24815327.9	90.. 98	26.6085	30.9479
	2237682.6	22577645.3	91.. 99	14.7934	16.1646
	2079940.0	20497705.3	92..100	8.273225	7.881283
9	1931111.8	18566593.5	93..101	4.433498	3.447785
0	1791189.0	16775404.5	94..102	2.244752	1.203033
	1660128.9	15115275.6	95..103	.966640	.236393

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	43691685.	500409301.1	48 & 57	1443227.9	12438873.0
1..10	35195837.7	465213463.4	49.. 58	1333375.7	11105497.3
2..11	30826419.7	434387043.7	50.. 59	1228035.0	9877462.3
3..12	27450975.4	406936068.3	51.. 60	1126604.0	8750858.3
4..13	25145786.0	381790282.3	52.. 61	1027093.4	7723764.9
5..14	23250688.5	358539593.8	53.. 62	933286.5	6790478.4
6..15	21732641.6	336806952.2	54.. 63	845805.9	5944672.5
7..16	20414182.7	316392769.5	55.. 64	765272.6	5179399.9
8..17	19233382.4	297159387.1	56.. 65	690590.1	4488809.8
9..18	18157642.6	279001744.5	57.. 66	621659.1	3867150.7
10..19	17167061.4	261834683.1	58.. 67	557702.2	3309448.5
11..20	16239400.6	245595282.5	59.. 68	497651.9	2811796.6
12..21	15355990.9	230239291.6	60.. 69	441261.9	2370534.7
13..22	14519701.1	215719590.5	61.. 70	388076.9	1982457.8
14..23	13725771.0	201993819.5	62.. 71	339583.2	1642874.6
15..24	12970139.1	189023680.4	63.. 72	294395.5	1348479.1
16..25	12247287.2	176776393.2	64.. 73	252483.7	1095995.4
17..26	11556126.3	165220266.9	65.. 74	213878.6	882116.8
18..27	10901116.1	154319150.8	66.. 75	178563.0	703553.8
19..28	10278590.9	144040559.9	67.. 76	147982.8	555571.0
20..29	9682049.9	134358510.0	68.. 77	121390.0	434181.0
21..30	9109285.9	125249224.1	69.. 78	98867.0	335314.0
22..31	8569020.7	116680203.4	70.. 79	80173.5	255140.54
23..32	8059564.0	108620639.4	71.. 80	64143.49	190997.05
24..33	7580599.8	101040039.6	72.. 81	50737.38	140259.67
25..34	7130310.1	93909729.5	73.. 82	39190.44	101069.23
26..35	6704585.3	87205144.2	74.. 83	29709.11	71360.12
27..36	6303273.5	80901870.7	75.. 84	21963.53	49396.59
28..37	5921831.3	74980039.4	76.. 85	15991.45	33405.14
29..38	5556551.5	69423487.9	77.. 86	11320.99	22084.15
30..39	5206222.8	64217265.1	78.. 87	7798.93	14285.22
31..40	4873125.6	59344139.5	79.. 88	5212.90	9072.319
32..41	4555658.3	54788481.2	80.. 89	3431.007	5641.312
33..42	4255874.6	50532606.6	81.. 90	2277.354	3363.958
34..43	3973727.8	46558878.8	82.. 91	1386.580	1977.3782
35..44	3709114.6	42849764.2	83.. 92	814.4242	1162.9540
36..45	3461000.3	39388763.9	84.. 93	476.4688	686.4852
37..46	3228485.9	36160278.0	85.. 94	284.1115	402.3737
38..47	3010645.9	33149632.1	86.. 95	168.1665	234.2072
39..48	2807227.4	30342404.7	87.. 96	99.5075	134.6997
40..49	2617446.8	27724957.9	88.. 97	58.4091	76.2906
41..50	2438332.7	25286625.2	89.. 98	33.9164	42.3742
42..51	2270312.8	23016312.4	90.. 99	20.0064	22.36776
43..52	2110718.6	20905593.8	91..100	11.58252	10.785242
44..53	1960117.3	18945476.5	92..101	6.157636	4.627606
45..54	1818112.6	17127363.9	93..102	3.030415	1.597191
46..55	1685096.0	15442267.9	94..103	1.288853	.306338
47..56	1560167.0	13882100.9			

TABLE XXX.   719

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Ten Years.

Ages.	D.	N.	Ages.	D.	N.
0 &10	41597728.1	474672410.1	47 & 57	1464616.2	12713495.3
1..11	33529031.6	441143378.5	48.. 58	1352218.9	11361276.4
2..12	29356769.0	411786609.5	49.. 59	1245071.7	10116204.7
3..13	26137531.8	385649077.7	50.. 60	1141926.7	8974278.0
4..14	23938254.9	361710822.8	51.. 61	1041985.9	7932292.1
5..15	22126537.6	339584285.2	52.. 62	947692.5	6984599.6
6..16	20668044.2	318916241.0	53.. 63	859688.3	6124911.3
7..17	19404058.0	299512183.0	54.. 64	778424.9	5346486.4
8..18	18277891.9	281234291.1	55.. 65	703193.3	4643293.1
9..19	17254756.9	263979534.2	56.. 66	633699.5	4009593.6
10..20	16312630.6	247666903.6	57.. 67	569605.3	3439988.3
11..21	15430371.5	232236532.1	58.. 68	509996.9	2929991.4
12..22	14592664.5	217643867.6	59.. 69	454101.3	2475890.1
13..23	13797270.6	203846597.0	60.. 70	401523.6	2074366.5
14..24	13042195.5	190804401.5	61.. 71	352186.3	1722180.2
15..25	12323576.0	178480825.5	62.. 72	305836.3	1416343.9
16..26	11634170.6	166846654.9	63.. 73	262525.2	1153818.7
17..27	10977014.4	155869640.5	64.. 74	222737.1	931081.6
18..28	10350656.8	145518983.7	65.. 75	186213.9	744867.7
19..29	9750412.6	135768571.1	66.. 76	154551.5	590316.2
20..30	9174061.7	126594509.4	67.. 77	127028.5	463287.7
21..31	8628953.9	117965555.5	68.. 78	103683.0	359604.7
22..32	8116331.0	109849224.5	69.. 79	84314.1	275290.6
23..33	7634372.0	102214852.5	70.. 80	67636.59	207653.96
24..34	7181249.5	95033603.0	71.. 81	53909.94	153744.02
25..35	6753985.1	85279617.9	72.. 82	42055.66	111688.36
26..36	6350061.1	81929556.8	73.. 83	32226.56	79461.80
27..37	5968192.2	75961364.6	74.. 84	24140.21	55321.59
28..38	5605310.3	70356054.3	75.. 85	17680.32	37641.27
29..39	5257897.7	65098156.6	76.. 86	12620.53	25020.74
30..40	4922860.3	60175296.3	77.. 87	8737.63	16283.11
31..41	4602632.4	55572663.9	78.. 88	5849.45	10433.66
32..42	4299428.9	51273235.0	79.. 89	3891.84	6541.82
33..43	4014073.9	47259161.0	80.. 90	2592.973	3948.848
34..44	3747160.4	43512000.7	81.. 91	1600.783	2348.0653
35..45	3496868.9	40015131.8	82.. 92	947.7649	1400.3004
36..46	3262916.6	36752215.2	83.. 93	561.1344	839.1660
37..47	3043685.4	33708529.8	84.. 94	337.7416	501.4244
38..48	2838929.1	30869600.7	85.. 95	203.9078	297.5166
39..49	2648907.7	28220693.0	86.. 96	123.3758	174.1408
40..50	2470460.9	25750232.1	87.. 97	74.5220	99.6188
41..51	2302023.7	23448208.4	88.. 98	43.4730	56.1458
42..52	2141497.3	21306711.1	89.. 99	25.5011	30.644649
43..53	1989122.9	19317588.2	90..100	15.66398	14.980669
44..54	1845420.9	17472167.3	91..101	8.62069	6.359979
45..55	1710424.9	15761742.4	92..102	4.208910	2.151069
46..56	1583630.9	14178111.5	93..103	1.739951	.411118

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N.
0 &11	39627741.	450123346.8	47 & 58	1372258.4	11608405.9
1..12	31930533.8	418192813.0	48.. 59	1262666.9	10345739.0
2..13	27952139.1	390240673.9	49.. 60	1157766.7	9187970.3
3..14	24882375.9	365358298.0	50.. 61	1056157.6	8131812.7
4..15	22780860.4	342577437.6	51.. 62	961433.6	7170379.1
5..16	21042644.8	321534792.8	52.. 63	872958.2	6297420.9
6..17	19645358.0	301889434.8	53.. 64	791201.4	5506219.5
7..18	18440088.6	283449346.2	54.. 65	715278.7	4790940.8
8..19	17369026.9	266080319.3	55.. 66	645264.5	4145676.3
9..20	16395961.4	249684357.9	56.. 67	580637.4	3565038.9
10..21	15499953.3	234184404.6	57.. 68	520881.8	3044157.1
11..22	14663347.7	219521056.9	58.. 69	465365.9	2578791.2
12..23	13866603.7	205654453.2	59.. 70	413206.6	2165584.6
13..24	13110134.2	192544319.0	60.. 71	364389.3	1801195.3
14..25	12392040.3	180152278.7	61.. 72	317186.9	1484008.4
15..26	11706640.2	168445638.5	62.. 73	272727.4	1211281.0
16..27	11051147.7	157394490.8	63.. 74	231595.4	979685.6
17..28	10422722.6	146971768.2	64.. 75	193926.5	785759.1
18..29	9818775.1	137152993.1	65.. 76	161173.5	624585.6
19..30	9238837.4	127914155.7	66.. 77	132667.2	491918.4
20..31	8699314.0	119223841.7	67.. 78	108499.2	383419.2
21..32	8173097.9	111050743.8	68.. 79	88421.1	294998.10
22..33	7688144.2	103362599.6	69.. 80	71129.69	223868.45
23..34	7232188.9	96130410.7	70.. 81	56845.75	167022.70
24..35	6802236.0	89328174.7	71.. 82	44685.35	122337.35
25..36	6396848.7	82931326.0	72.. 83	34582.63	87754.72
26..37	6012492.6	76918833.4	73.. 84	26185.77	61568.95
27..38	5649193.2	71269640.2	74.. 85	19432.52	42136.43
28..39	5304035.6	65965604.6	75.. 86	13953.39	28183.04
29..40	4971722.3	60993882.3	76.. 87	9740.63	18442.41
30..41	4649606.4	56344275.9	77.. 88	6553.51	11888.90
31..42	4343760.9	52000515.0	78.. 89	4367.06	7521.84
32..43	4055153.7	47945361.3	79.. 90	2941.23	
33..44	3785206.1	44160155.2	80.. 91	1822.636	3757.9731
34..45	3532737.5	40627417.7	81.. 92	1094.1783	1663.7948
35..46	3296732.4	37330685.3	82.. 93	653.0055	1010.7893
36..47	3076145.2	34254540.1	83.. 94	397.7561	613.0332
37..48	2870084.0	31384456.1	84.. 95	242.3982	370.6350
38..49	2678821.4	28705634.7	85.. 96	149.5974	221.0375
39..50	2500155.0	26205479.7	86.. 97	92.3970	128.6406
40..51	2332355.8	23873123.9	87.. 98	55.4655	73.1751
41..52	2171408.9	21701715.0	88.. 99	32.6865	40.48858
42..53	2018129.3	19683586.7	89..100	19.96605	20.52253
43..54	1872729.2	17810857.5	90..101	11.65845	8.66408
44..55	1736115.6	16074741.9	91..102	5.89247	2.971608
45..56	1607434.7	14467307.2	92..103	2.416599	.555009
46..57	1486642.9	12980664.3			

TABLE XXX. 72f

ary Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twelve Years.

D.	N.	Ages.	D.	N.
7738487.	426715736.0	46 & 58	1392896.1	11848780.7
0402757.3	396312978.7	47.. 59	1281379.1	10567401.6
5609843.5	369703135.2	48.. 60	1174130.2	9393271.4
3679334.1	346023801.1	49.. 61	1070809.8	8322461.6
1664915.2	324358885.9	50.. 62	974509.8	7347951.8
0001422.8	304357463.1	51.. 63	885615.7	6462336.1
3669401.1	285688062.0	52.. 64	803414.1	5658922.0
7323158.3	268164903.7	53.. 65	727018.7	4931903.3
5504543.9	251660359.8	54.. 66	656354.3	4275549.0
5579132.6	236081227.2	55.. 67	591234.0	3684315.0
1729470.7	221351756.5	56.. 68	530970.2	3153344.8
9933770.1	207417986.4	57.. 69	475298.3	2678046.5
3176014.3	194241972.1	58.. 70	423456.8	2254589.7
4456592.4	181785379.7	59.. 71	374991.9	1879597.8
1771677.1	170013702.6	60.. 72	328177.2	1551420.6
1119985.7	158893716.9	61.. 73	282849.1	1268571.5
4493112.4	148400604.5	62.. 74	240595.6	1027975.9
9987137.7	138513466.8	63.. 75	201639.2	826336.7
8303613.3	129209853.5	64.. 76	167849.1	658487.6
8751674.2	120458179.3	65.. 77	138351.6	520136.0
9231216.6	112226962.7	66.. 78	113315.3	406820.7
7741916.3	104485046.4	67.. 79	92528.4	314292.26
7283128.4	97201918.0	68.. 80	74594.61	239697.65
3850487.0	90351431.0	69.. 81	59781.56	179916.09
4443548.4	83908882.6	70.. 82	47118.81	132797.28
6056793.0	77852089.6	71.. 83	36745.05	96052.23
5691125.8	72160963.8	72.. 84	28100.21	67952.02
5345559.9	66815403.9	73.. 85	21079.18	46872.84
5015349.2	61800054.7	74.. 86	15336.23	31536.61
4695756.3	57104298.4	75.. 87	10769.35	20767.26
4388093.0	52716205.4	76.. 88	7305.78	13461.48
4096967.0	48619238.4	77.. 89	4892.69	8568.79
3823943.6	44795294.8	78.. 90	3300.39	5268.40
3568606.2	41226688.6	79.. 91	2067.43	3200.9722
3330548.1	37896140.5	80.. 92	1245.8207	1955.1515
3108025.4	34788115.1	81.. 93	753.8835	1201.2680
2906692.4	31887422.7	82.. 94	462.8783	738.3897
2708219.4	29179203.3	83.. 95	285.4708	452.9189
2528388.9	26650814.4	84.. 96	177.8360	275.0829
2360389.9	24290424.5	85.. 97	112.0346	163.0483
2200020.0	22090404.5	86.. 98	68.7698	94.2785
2046316.8	20044087.7	87.. 99	41.7033	52.57322
1900037.4	18144050.3	88..100	25.59184	26.98338
1761806.4	16382243.9	89..101	14.86042	12.12296
1631578.4	14750665.5	90..102	7.96887	4.15409
1508988.7	13241676.8	91..103	3.38324	.770846

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &13	35932818.	404399511.4	46 & 59	1300659.2	10782964.9
1..14	28942780.1	375456791.3	47.. 60	1191530.4	9591434.5
2..15	25323280.2	350133511.1	48.. 61	1085942.5	8505492.0
3..16	22519375.9	327614135.2	49.. 62	986049.2	7517462.8
4..17	20592902.2	307021233.0	50.. 63	897650.8	6619809.0
5..18	19007777.0	288013456.0	51.. 64	815063.3	5804738.7
6..19	17741068.4	270272387.6	52.. 65	738240.7	5066498.0
7..20	16651004.1	253621383.5	53.. 66	667127.1	4399370.9
8..21	15682305.7	237939077.8	54.. 67	601395.2	3797975.7
9..22	14804714.1	223134363.7	55.. 68	540660.3	3257315.4
10..23	13996603.1	209137760.6	56.. 69	484504.0	2772811.4
11..24	13239835.7	195897924.9	57.. 70	432494.6	████████
12..25	12519188.3	183378736.6	58.. 71	384294.1	1956022.7
13..26	11832997.5	171545739.1	59.. 72	337726.1	████████
14..27	11181763.4	160363975.7	60.. 73	292649.7	1325646.9
15..28	10558474.4	149805501.3	61.. 74	249525.0	1076121.9
16..29	9953910.4	139851590.9	62.. 75	209475.2	866646.7
17..30	9368399.0	130483201.9	63.. 76	174524.5	692122.2
18..31	8813034.4	121670167.5	64.. 77	144081.9	548040.3
19..32	8289335.3	113380832.2	65.. 78	118170.6	429869.7
20..33	7796968.8	105583863.4	66.. 79	96635.6	333234.08
21..34	7334067.9	98249795.5	67.. 80	78059.55	████████
22..35	6898739.0	91351057.5	68.. 81	62693.68	192480.86
23..36	6488247.8	84862809.7	69.. 82	49552.27	142988.58
24..37	6100063.1	78762746.6	70.. 83	38746.10	104182.48
25..38	5733058.3	73029688.3	71.. 84	29857.26	74325.20
26..39	5385238.7	67644449.6	72.. 85	22620.26	51704.94
27..40	5054613.5	62589836.1	73.. 86	16635.77	35069.17
28..41	4736961.6	57852874.5	74.. 87	11836.64	23232.53
29..42	4431647.2	53421227.3	75.. 88	8077.35	15155.18
30..43	4138780.2	49282447.1	76.. 89	5454.33	9700.85
31..44	3863372.8	45419074.3	77.. 90	3697.63	6003.22
32..45	3605127.0	41813947.3	78.. 91	2319.89	████████
33..46	3364363.9	38449583.4	79.. 92	1413.150	2270.1916
34..47	3139905.5	35309677.9	80.. 93	858.3646	1411.8170
35..48	2930754.2	32378923.7	81.. 94	534.3850	877.4520
36..49	2737101.5	29641822.2	82.. 95	332.2093	545.2227
37..50	2556136.0	27085686.2	83.. 96	209.4364	335.7963
38..51	2387045.4	24698640.8	84.. 97	133.1828	202.6035
39..52	2226463.5	22472177.3	85.. 98	83.3856	119.2179
40..53	2073279.7	20396897.6	86.. 99	51.7065	67.51135
41..54	1926576.5	18472321.1	87..100	32.65164	34.85971
42..55	1787497.1	16684824.0	88..101	19.04761	15.81210
43..56	1655722.2	15039101.8	89..102	10.15750	5.65450
44..57	1531653.9	13497447.9	90..103	4.57542	1.07918
45..58	1413832.8	12083615.1			

TABLE XXX. 719

Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Fourteen Years.

D.	N.	Ages.	D.	N.
▓▓▓.	383126459.3	45 & 59	1320900.4	10998573.5
421.3	355583036.0	46.. 60	1209450.2	9784123.3
791.4	331500246.6	47.. 61	1102035.7	8682067.6
083.0	310095163.6	48.. 62	1001992.0	7680095.6
073.5	290525291.1	49.. 63	910114.1	6769981.5
618.6	272462672.5	50.. 64	▓▓▓▓▓.▓	5943832.7
860.4	255604604.1	51.. 65	746944.9	▓▓▓▓▓▓7.▓
469.4	239783134.7	52.. 66	677424.7	4517463.1
758.6	224880376.1	53.. 67	611266.1	3906197.0
102.7	210812273.4	54.. 68	549952.4	▓▓▓▓944.▓
539.4	197512734.0	55.. 69	493346.2	2862898.4
828.1	184932905.9	56.. 70	440871.3	2422027.1
459.9	173040446.0	57.. 71	392496.2	▓▓▓9530.▓
010.9	161800435.1	58.. 72	346104.0	1683426.9
133.5	151183302.6	59.. 73	301164.9	1362262.0
▓▓▓.8	141167388.8	60.. 74	258170.9	1124091▓▓
658.4	131735730.4	61.. 75	217249.5	906841.6
394.6	1▓2841▓33.▓	62.. 76	181▓▓7.▓	725534.7
453.8	114513882.0	63.. 77	149812.1	575722.6
081.3	106661860.7	64.. 78	123065.0	482857.6
228.2	99275840.5	65.. 79	100776.2	▓31801▓▓▓
988.9	92328651.6	66.. 80	▓1524▓49	270356.87
947.4	85794704.2	67.. 81	65605.82	204751.05
▓▓3.3	79651170.▓	68.. 82	51966.10	152784.95
015.7	73877355.2	69.. 83	40747.15	112037.80
917.4	▓▓4▓▓▓7.▓	70.. 84	▓▓4▓▓.▓4	80554.56
132.6	▓3380303.▓	71.. 85	24034.05	56519.88
046.4	58586258.8	72.. 86	17852.01	38667.87
535.0	54115723.8	73.. 87	12839.63	25826.94
569.9	49935863.9	74.. 88	8877.85	16950.39
802.1	4603306▓.▓	75.. 89	6030.35	10920.04
▓▓▓.▓	42390761.7	76.. 90	4122.09	6707.05
794.5	38991967.2	77.. 91	▓599.▓▓	4109.831
703.7	35820181.5	78.. 92	1555.705	2613.122
916.0	32850365.5	79.. 93	973.653	1639.4669
467.9	30093897.0	80.. 94	▓08▓.4435	1031.0234
896.2	27510501.4	81.. 95	383.5299	647.4935
241.5	25097259.9	82.. 96	243.7262	403.7673
606.6	22845653.3	83.. 97	156.▓4▓▓	246.9187
190.▓	20747453.5	84.. 98	99.1259	147.7928
961.5	18795492.0	85.. 99	62.6960	85.09684
464.3	16983027.7	86..100	40.48364	44.61320
366.0	15303161.7	87..101	24.30213	20.31107
319.1	13748842.6	88..102	13.01956	7.29151
068.7	12313773.9	89..103	5.83205	1.45946

3 A 2

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 4½ per Cent.)

Difference of Age Fifteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 15	32553388.	362854361.4	45 & 60	1227629.6	9972418.3
1..16	26194176.5	336660184.9	46.. 61	1118609.7	8853808.6
2..17	22891138.5	313769046.4	47.. 62	1016841.2	7836967.4
3..18	20341705.3	293427341.1	48.. 63	922975.8	6913991.6
4..19	18596764.2	274830576.9	49.. 64	837610.1	6076381.5
5..20	17163614.6	257666962.3	50.. 65	759131.2	5317250.3
6..21	16018218.0	241648744.3	51.. 66	687247.1	4630003.2
7..22	15035004.6	226613739.7	52.. 67	620701.4	4009301.8
8..23	14161269.0	212452470.7	53.. 68	558978.8	3450323.0
9..24	13367478.3	199084992.4	54.. 69	501825.0	2948498.0
10..25	12636555.8	186448436.6	55.. 70	448917.2	2499580.8
11..26	11950064.0	174498372.6	56.. 71	400098.0	2099482.8
12..27	11296493.4	163201879.2	57.. 72	353490.9	1745991.9
13..28	10672438.9	152529440.3	58.. 73	308635.3	1437356.1
14..29	10071557.7	142457852.6	59.. 74	265682.9	1171673.2
15..30	9490408.6	132967474.0	60.. 75	224777.1	946696.1
16..31	8934327.8	124033146.2	61.. 76	188035.9	758860.2
17..32	8405572.5	115627573.7	62.. 77	155634.2	603226.0
18..33	7907073.7	107720500.0	63.. 78	127959.4	475266.6
19..34	7438372.4	100282127.6	64.. 79	104950.3	370316.25
20..35	6996388.7	93285738.9	65.. 80	85017.59	285298.66
21..36	6579647.0	86706091.9	66.. 81	68517.94	216780.72
22..37	6186603.5	80519488.4	67.. 82	54379.94	162400.78
23..38	5814973.1	74704515.3	68.. 83	42732.06	119668.79
24..39	5463673.6	69240841.7	69.. 84	33109.20	86559.63
25..40	5129651.8	64111189.9	70.. 85	25343.55	61215.97
26..41	4809483.0	59301706.9	71.. 86	18968.29	42247.68
27..42	4505534.0	54796172.9	72.. 87	13778.34	28469.34
28..43	4216538.2	50579634.7	73.. 88	9630.14	18839.20
29..44	3941539.5	46638095.2	74.. 89	6628.00	12211.20
30..45	3679473.0	42958622.2	75.. 90	4587.42	7653.78
31..46	3433840.1	39524782.1	76.. 91	2897.47	4756.397
32..47	3204245.5	36320536.6	77.. 92	1776.569	2979.738
33..48	2990877.9	33329658.7	78.. 93	1092.545	1887.193
34..49	2793834.3	30535824.4	79.. 94	690.167	1197.0261
35..50	2610169.7	27925654.7	80.. 95	436.6834	760.3428
36..51	2438977.7	25486677.0	81.. 96	281.3776	478.9652
37..52	2276316.3	23210360.7	82.. 97	182.5284	296.4368
38..53	2121894.5	21088466.2	83.. 98	116.7400	179.6968
39..54	1975423.6	19113042.6	84.. 99	74.5308	105.1669
40..55	1836345.8	17276696.8	85..100	49.08781	56.07810
41..56	1703329.9	15573366.9	86..101	30.13136	25.94690
42..57	1576984.3	13996382.6	87..102	16.61116	9.3356
43..58	1456304.7	12540077.9	88..103	7.47534	1.8663
44..59	1340030.0	11200047.9			

TABLE XXX. 788

ble for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Sixteen Years.

	N.	Ages.	D.	N.
24.	343551945.9	45 & 61	1135423.5	9021674.0
49.0	318653896.9	46..62	10[...].[	7989540.2
35.3	296899961.7	47..63	936653.9	7052686.3
17.5	277569744.2	48..64	849447.1	6203439.2
74.7	259898569.5	49..65	769662.6	[illegible]
43.2	243590027.3	50..66	696594.0	4737182.6
73.1	228368054.2	51..67	629701.2	4107481.4
35.0	214081119.2	52..68	567607.1	3539874.3
04.6	200625114.6	53..69	510061.6	3029812.7
87.8	187924006.8	54..70	456632.4	[illegible]
51.7	175920055.1	55..71	407399.8	2165780.5
10.8	164568844.3	56..72	[illegible]	1805443.2
69.2	153842775.1	57..73	315222.9	[illegible]
22.0	143718753.1	58..74	272273.5	[illegible]
83.1	134175620.0	59..75	231317.3	986629.5
80.1	125185639.9	60..76	194551.2	792078.3
39.4	116723300.5	61..77	161410.2	630668.1
26.3	108761174.2	62..78	132932.2	497735.9
84.7	101270649.5	63..79	109124.1	388611.79
68.5	94224861.0	64..80	88538.86	300072.93
34.6	87598426.4	65..81	71453.76	228619.17
73.7	81368552.7	66..82	56793.77	171825.40
30.6	75512622.1	67..83	44716.97	127108.43
29.5	70010192.6	68..84	34722.04	[illegible]
96.4	64843694.2	69..85	26652.43	[illegible]
19.5	59998974.7	70..86	20001.25	45732.71
77.3	55459997.4	71..87	14539.87	31092.84
48.7	51210446.7	72..88	10334.20	20756.64
26.6	47234322.1	73..89	7189.63	13569.01
93.7	[illegible]	74..90	5009.08	8559.93
85.6	40049442.8	75..91	3203.47	5356.460
84.0	36812157.9	76..92	1980.502	3375.958
86.3	33790671.6	77..93	1224.046	2151.912
00.7	30968470.9	78..94	774.443	1377.469
47.1	28331527.8	79..95	495.335	[illegible]
54.4	25867273.4	80..96	320.3736	561.7600
92.3	23566681.1	81..97	210.7258	351.0342
0.0	21421500.5	82..98	135.8531	215.1611
31.7	19423768.8	83..99	87.7744	127.40670
18.1	17565350.7	84..100	58.35381	[illegible]
73.4	15839577.3	85..101	36.53530	32.51759
11.0	14240566.3	86..102	20.59560	11.92199
40.7	12763025.6	87..103	9.53751	[illegible]
59.4	11403166.2			
68.7	10157097.5			

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Seventeen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 17	29426840.	325184932.2	45 & 62	1047647.9	8138768.9
1..18	23661144.8	301523787.4	46.. 63	950740.6	7188028.3
2..19	20672224.6	280851562.8	47.. 64	862035.6	6325992.7
3..20	18368123.1	262483439.7	48.. 65	780539.4	5545453.3
4..21	16790816.2	245692623.5	49.. 66	706258.0	4839195.3
5..22	15497865.7	230194757.8	50.. 67	638265.6	4200929.7
6..23	14464600.9	215730156.9	51.. 68	575837.2	3625092.5
7..24	13575412.2	202154744.7	52.. 69	517934.7	3107157.8
8..25	12785221.1	189369523.6	53.. 70	464127.3	2643030.5
9..26	12065272.2	177304251.4	54.. 71	414401.6	2228628.9
10..27	11402398.0	165901853.4	55.. 72	366913.4	1861715.5
11..28	10778023.5	155123829.9	56.. 73	321328.2	1540387.3
12..29	10174896.5	144948933.4	57.. 74	278084.5	1262302.8
13..30	9592844.7	135356088.7	58.. 75	237055.6	1025247.2
14..31	9039924.4	126316164.3	59.. 76	200212.0	825035.2
15..32	8515051.7	117801112.6	60.. 77	167003.0	658032.2
16..33	8015898.5	109785214.1	61.. 78	137865.7	520166.5
17..34	7542677.0	102242537.1	62.. 79	113364.9	406801.59
18..35	7095188.3	95147348.8	63.. 80	92060.13	314741.46
19..36	6673222.3	88474126.5	64.. 81	74413.25	240328.21
20..37	6274174.1	82199952.4	65.. 82	59227.23	181100.98
21..38	5896887.9	76303064.5	66.. 83	46701.87	134399.11
22..39	5541185.5	70761879.0	67.. 84	36334.89	98064.22
23..40	5202945.0	65556934.0	68.. 85	27950.74	70113.48
24..41	4879532.0	60679402.0	69.. 86	21034.22	49079.26
25..42	4572420.9	56106981.1	70.. 87	15437.13	33642.13
26..43	4281092.1	51825889.0	71.. 88	10980.38	22661.75
27..44	4007254.9	47818634.1	72.. 89	7715.26	14946.49
28..45	3748601.8	44070032.3	73.. 90	5433.53	9512.96
29..46	3503316.2	40566716.1	74.. 91	3520.95	5992.013
30..47	3270324.4	37296391.7	75.. 92	2189.663	3802.350
31..48	3052641.2	34243750.5	76.. 93	1364.556	2437.794
32..49	2851082.9	31392667.6	77.. 94	867.658	1570.138
33..50	2663716.6	28728951.0	78.. 95	555.821	1014.315
34..51	2489531.3	26239419.7	79.. 96	363.404	650.9108
35..52	2324434.9	23914984.8	80.. 97	239.9305	410.9803
36..53	2168058.2	21746926.6	81.. 98	156.8401	254.1402
37..54	2019655.2	19727271.4	82.. 99	102.1451	151.99513
38..55	1879405.0	17847866.4	83..100	68.72292	83.27220
39..56	1746516.7	16101349.7	84..101	43.43186	39.84034
40..57	1620080.0	14481269.7	85..102	24.97286	14.86748
41..58	1498178.4	12983091.3	86..103	11.82522	3.04226
42..59	1379639.1	11603402.2			
43..60	1264507.8	10338894.4			
44..61	1152477.6	9186116.8			

TABLE XXX. 727

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Eighteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 18	27964951.	307712359.3	45 & 63	965031.3	7320297.8
1..19	22484598.6	285227760.7	46.. 64	875000.0	6445297.8
2..20	19643336.4	265584424.3	47.. 65	792106.8	5653191.0
3..21	17453043.4	248131380.9	48.. 66	716238.8	4936952.2
4..22	15956166.5	232175214.4	49.. 67	647120.3	4289831.9
5..23	14726766.4	217448448.0	50.. 68	583669.0	3706162.9
6..24	13744229.8	203704218.2	51.. 69	525444.6	3180718.3
7..25	12898676.3	190805541.9	52.. 70	471291.4	2709426.9
8..26	12145174.6	178660367.3	53.. 71	421203.1	2288223.8
9..27	11460645.5	167199721.8	54.. 72	373219.3	1915004.5
10..28	·10826626.1	156373095.7	55.. 73	327192.4	1587812.1
11..29	10224181.1	146148914.6	56.. 74	283470.7	1304341.4
12..30	9641050.0	136507864.6	57.. 75	242115.1	1062226.3
13..31	9087014.7	127420849.9	58.. 76	205178.6	857047.7
14..32	8562357.6	118858492.3	59.. 77	171862.3	685185.4
15..33	8065829.8	110792662.5	60.. 78	142642.6	542542.8
16..34	7593616.4	103199046.1	61.. 79	117572.3	424970.51
17..35	7144588.1	96054458.0	62.. 80	95637.74	329332.77
18..36	6720009.9	89334448.1	63.. 81	77372.72	251960.05
19..37	6318474.5	83015963.6	64.. 82	61680.31	190279.74
20..38	5938820.5	77077143.1	65.. 83	48702.93	141576.81
21..39	5579941.4	71497201.7	66.. 84	37947.73	103629.08
22..40	5239591.6	66257610.1	67.. 85	29249.06	74380.02
23..41	4914144.5	61343465.6	68.. 86	22058.85	52321.17
24..42	4605086.6	56738379.0	69.. 87	16234.39	36086.78
25..43	4312635.3	52425743.7	70.. 88	11578.35	24508.43
26..44	4036999.7	48388744.0	71.. 89	8197.68	16300.75
27..45	3777948.8	44610795.2	72.. 90	5830.78	10479.97
28..46	3534057.7	41076737.5	73.. 91	3819.30	6660.670
29..47	3302784.0	37773953.5	74.. 92	2406.669	4254.001
30..48	3083796.1	34690157.4	75.. 93	1508.666	2745.335
31..49	2880480.8	31809676.6	76.. 94	967.256	1778.079
32..50	2690976.9	29118699.7	77.. 95	622.721	1155.358
33..51	2514808.0	26603891.7	78.. 96	407.779	747.579 ·
34..52	2348277.5	24255614.2	79.. 97	272.156	475.4226·
35..53	2190527.2	22065087.0	80.. 98	178.5765	296.8461
36..54	2041194.1	20023892.9	81.. 99	117.9248	178.92126
37..55	1900029.9	18123863.0	82..100	79.97451	98.94675
38..56	1766239.8	16357623.2	83..101	51.14943	47.79732
39..57	1639552.9	14718070.3	84..102	29.68684	18.11048
40..58	1517918.9	13200151.4	85..103	14.33849	3.77199
41..59	1398960.0	11801191.4			
42..60	1282946.9	10518244.5			
43..61	1169531.8	9348712.7			
44..62	1063383.6	8285329.1			

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
Carlisle 4½ per Cent.)

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 19	26574399.	291091219.3	45 & 64	888152.2	6562160.7
1..20	21365505.8	259725713.5	46.. 65	804019.5	5758141.3
2..21	18664727.0	251060986.5	47.. 66	726853.2	5031288.0
3..22	16585475.3	234475511.2	48.. 67	656265.5	4375022.5
4..23	15162264.4	219313246.8	49.. 68	591766.2	3783256.3
5..24	13993338.9	205319907.9	50.. 69	532590.9	3250665.4
6..25	13059078.3	192260829.6	51.. 70	478124.9	2772540.5
7..26	12252950.0	180007879.6	52.. 71	427704.7	2344835.8
8..27	11536543.9	168471335.7	53.. 72	379345.1	1965490.7
9..28	10881932.3	157589403.4	54.. 73	332815.7	1632675.0
10..29	10270286.1	147319117.3	55.. 74	288644.0	1344031.0
11..30	9687748.8	137631368.5	56.. 75	246804.4	1097226.6
12..31	9132678.2	128498690.3	57.. 76	209557.7	887668.9
13..32	8606960.1	119891730.2	58.. 77	176125.6	711543.3
14..33	8110640.0	111781090.2	59.. 78	146793.0	564750.3
15..34	7640917.4	104140172.8	60.. 79	121646.0	443104.28
16..35	7192839.0	96947333.8	61.. 80	99187.19	343917.09
17..36	6766797.4	80180536.4	62.. 81	80379.56	263537.53
18..37	6362774.8	83817761.6	63.. 82	64133.39	199404.14
19..38	5980753.1	77837008.5	64.. 83	50720.12	148684.02
20..39	5619620.2	72217388.3	65.. 84	39573.70	109110.32
21..40	5276238.1	66941150.2	66.. 85	30547.37	78562.95
22..41	4948757.0	61992393.2	67.. 86	23083.49	55479.46
23..42	4637752.2	57354641.0	68.. 87	17025.21	38454.25
24..43	4343445.2	53011195.8	69.. 88	12176.32	26277.93
25..44	4066744.6	48944451.2	70.. 89	8644.11	17633.62
26..45	3805991.5	45138459.7	71.. 90	6195.37	11438.45
27..46	3561725.2	41576734.5	72.. 91	4098.54	7339.908
28..47	3331766.0	38244968.5	73.. 92	2610.601	4729.307
29..48	3114404.6	35130563.9	74.. 93	1658.184	3071.123
30..49	2909878.7	32220685.2	75.. 94	1069.408	2001.715
31..50	2718724.0	29501961.2	76.. 95	694.203	1307.511
32..51	2540544.3	26961416.9	77.. 96	456.860	850.652
33..52	2372120.1	24589296.8	78.. 97	305.389	545.263
34..53	2212996.2	22376300.6	79.. 98	202.561	342.7018
35..54	2062348.3	20313952.3	80.. 99	134.2680	208.43378
36..55	1920293.1	18393659.2	81..100	92.32919	116.10459
37..56	1785623.0	16608036.2	82..101	59.52382	56.58077
38..57	1658068.1	14949968.1	83..102	34.96201	21.61876
39..58	1536163.7	13413804.4	84..103	17.04508	4.57368
40..59	1417393.1	11996411.3			
41..60	1300866.7	10695544.6			
42..61	1186586.1	9508958.5			
43..62	1079119.5	8429839.0			
44..63	979526.1	7450312.9			

TABLE XLI. 192

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 20	25251750.	275280671.5	45 & 65	816104.9	5861036.4
1..21	20301099.9	254979571.6	46.. 66	737784.6	5123251.8
2..22	17736927.8	237242643.8	47.. 67	665991.1	4457260.7
3..23	15760261.7	221482382.1	48.. 68	600129.1	3857131.6
4..24	14407148.1	207075234.0	49.. 69	539979.7	3317151.9
5..25	13295769.3	193779464.7	50.. 70	484627.7	2832524.2
6..26	12405322.3	181374142.4	51.. 71	433906.3	2398617.9
7..27	11638918.4	169735224.0	52.. 72	385400.6	2013417.3
8..28	10953998.2	158781225.8	53.. 73	338278.2	1675139.1
9..29	10322750.5	148458475.3	54.. 74	293604.8	1381534.3
10..30	9731434.8	138727040.5	55.. 75	251308.6	1130225.7
11..31	9176914.6	129550125.9	56.. 76	213616.4	916609.3
12..32	8650211.2	120899914.7	57.. 77	179884.6	736724.7
13..33	8152889.5	112747025.2	58.. 78	150434.5	586290.2
14..34	7683366.9	105063658.3	59.. 79	125185.6	461104.6
15..35	7237643.5	97826014.8	60.. 80	102623.95	358480.66
16..36	6812497.1	91013517.7	61.. 81	83362.73	275117.93
17..37	6407075.3	84606442.4	62.. 82	66625.73	208492.20
18..38	6022685.7	78583756.7	63.. 83	52737.31	155754.89
19..39	5659299.0	72924457.7	64.. 84	41212.77	114542.12
20..40	5313757.3	67610700.4	65.. 85	31856.23	82685.89
21..41	4983369.4	62527331.0	66.. 86	24108.13	58577.76
22..42	4670418.1	57956912.9	67.. 87	17816.03	40761.73
23..43	4374255.0	53582637.9	68.. 88	12769.46	27992.27
24..44	4095797.8	49486860.1	69.. 89	9090.54	18901.73
25..45	3834034.3	45652825.8	70.. 90	6532.76	12368.97
26..46	3588163.1	42064662.7	71.. 91	4354.82	8014.154
27..47	3357849.8	38706812.9	72.. 92	2801.462	5212.692
28..48	3141733.5	35565079.4	73.. 93	1798.693	3413.999
29..49	2938760.9	32626318.5	74.. 94	1175.391	2238.608
30..50	2746471.0	29879847.5	75.. 95	767.518	1471.090
31..51	2566740.4	27313107.1	76.. 96	509.304	961.786
32..52	2396396.1	24916711.0	77.. 97	342.146	619.640
33..53	2235465.4	22681245.6	78.. 98	227.297	392.343
34..54	2083502.7	20597742.9	79.. 99	152.302	240.04135
35..55	1940194.4	18657548.5	80..100	105.12511	134.91624
36..56	1804665.9	16852882.6	81..101	68.71921	66.19703
37..57	1676264.1	15176618.5	82..102	40.68613	25.51090
38..58	1553511.5	13623107.0	83..103	20.07388	5.43702
39..59	1434429.8	12188677.2			
40..60	1318007.3	10870669.9			
41..61	1203150.0	9667509.9			
42..62	1094855.3	8572654.6			
43..63	994021.0	7578633.6			
44..64	901492.3	6677141.3			

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 21	23993736.	260241777.5	42 & 63	1008515.8	7705564.8
1..22	19291958.5	240949819.0	43.. 64	914832.4	6790732.4
2..23	16854423.4	224095395.6	44.. 65	828362.7	5962369.7
3..24	14975363.7	209120031.9	45.. 66	748874.3	5213495.4
4..25	13688949.9	195431082.0	46.. 67	675997.1	4537498.8
5..26	12630163.9	182800918.1	47.. 68	609022.8	3928475.5
6..27	11783654.7	171017263.4	48.. 69	547610.6	3380864.9
7..28	11031203.2	159966060.2	49.. 70	491351.0	2889513.9
8..29	10391113.0	149574947.2	50.. 71	439807.7	2449706.2
9..30	9781146.5	139793800.7	51.. 72	390785.7	2058920.5
10..31	9218296.9	130575503.8	52.. 73	343499.8	1715420.7
11..32	8692110.7	121883393.1	53.. 74	298423.8	1416996.9
12..33	8193858.9	113689534.2	54.. 75	255627.6	1161369.3
13..34	7723390.5	105960143.7	55.. 76	217514.9	943854.4
14..35	7277852.7	98688291.0	56.. 77	183368.6	760485.8
15..36	6854932.4	91833358.6	57.. 78	153645.2	606840.6
16..37	6450345.4	85383013.2	58.. 79	128291.0	478549.59
17..38	6064618.1	79318395.1	59.. 80	105609.98	372939.61
18..39	5698977.8	73619417.3	60.. 81	86251.18	286688.43
19..40	5351276.4	68268140.9	61.. 82	69098.43	217590.00
20..41	5018806.0	63249334.9	62.. 83	54786.76	162803.34
21..42	4703083.8	58546251.1	63.. 84	42851.83	119951.41
22..43	4405064.8	54141186.3	64.. 85	33175.67	86775.74
23..44	4124850.8	50016335.5	65.. 86	25141.70	61634.64
24..45	3861425.0	46154910.5	66.. 87	18606.86	43027.78
25..46	3614600.8	42540309.7	67.. 88	13362.60	29665.18
26..47	3382774.4	39157535.3	68.. 89	9533.37	20131.81
27..48	3166329.5	35991205.8	69.. 90	6870.15	13261.66
28..49	2964548.5	33026657.3	70.. 91	4591.97	8402.5
29..50	2773731.2	30252926.1	71.. 92	2976.634	5693.055
30..51	2592936.1	27659990.0	72.. 93	1930.195	3762.860
31..52	2421105.7	25238884.3	73.. 94	1274.990	1847.670
32..53	2258342.9	22980541.4	74.. 95	843.581	1003.1
33..54	2104656.8	20875884.6	75.. 96	563.091	1001.1
34..55	1960095.6	18915789.0	76.. 97	381.422	699.778
35..56	1823368.8	17092420.2	77.. 98	254.654	445.122
36..57	1694140.6	15398279.4	78.. 99	170.899	274.2228
37..58	1570560.0	13827719.4	79..100	119.3447	154.97806
38..59	1450628.5	12377090.9	80..101	78.24302	76.73504
39..60	1333849.4	11043241.5	81..102	46.97143	31.77081
40..61	1219013.1	9824228.4	82..103	23.36046	6.40315
41..62	1110147.8	8714080.6			

Difference of Age Twenty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 22	22801038.	245933954.7	5 & 27	11907820.0	172357107.2
1..23	18332083.4	227601871.3	6.. 28	11188630.9	161168476.3
2..24	16015033.6	211586837.7	7.. 29	10483323.0	150685153.3
3..25	14228840.0	197357997.7	8.. 30	9845922.3	140839231.0
4..26	13003661.5	184354336.2	9.. 31	9255387.3	131573843.7

TABLE XXX. 73₄

ry Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Two Years—*continued.*

D.	N.	Ages.	D.	N.
31306.9	122842536.8	46 & 68	618182.0	3998150.1
33547.9	114608988.9	47.. 69	555726.0	3442424.1
52201.8	106846787.1	48.. 70	498294.7	2944129.4
15764.0	99531023.1	49.. 71	445909.2	2498220.2
83015.3	92638007.8	50.. 72	396100.8	2102119.4
90524.9	86147482.9	51.. 73	348480.4	1753639.0
15575.5	80041907.4	52.. 74	303030.1	1450608.9
38656.5	74303250.9	53.. 75	259823.3	1190785.6
38795.6	68914455.3	54.. 76	221253.2	969532.4
54242.6	63860212.7	55.. 77	186715.0	782817.4
36527.2	59123685.5	56.. 78	156621.1	626196.3
15874.5	54687811.0	57.. 79	131029.1	495167.21
53904.0	50533907.0	58.. 80	108229.81	386937.40
38815.6	46645091.4	59.. 81	88760.81	298176.59
10423.7	43004667.7	60.. 82	71492.64	226683.95
17698.8	39596968.9	61.. 83	56820.08	169863.87
39832.3	36407136.6	62.. 84	44517.13	125346.74
37757.5	33419379.1	63.. 85	34495.08	90851.66
38070.7	30621308.4	64.. 86	26182.40	64669.26
18672.4	28002636.0	65.. 87	19404.10	45265.16
15815.2	25556820.8	66.. 88	13955.75	31309.41
31628.9	23275191.9	67.. 89	9976.19	21333.22
26195.8	21148996.1	68.. 90	7204.80	14128.42
79996.9	19168999.2	69.. 91	4829.12	9299.303
42071.8	17326927.4	70.. 92	3138.736	6160.567
11698.3	15615229.1	71.. 93	2050.886	4109.681
87309.4	14027919.7	72.. 94	1368.204	2741.477
56548.1	12561371.6	73.. 95	915.063	1826.414
48912.3	11212459.3	74.. 96	618.896	1207.518
33665.3	9978794.0	75.. 97	421.703	785.815
24775.4	8854018.6	76.. 98	283.887	501.928
22602.4	7831416.2	77.. 99	191.468	310.4596
28172.7	6903243.5	78..100	133.8056	176.6540
40620.7	6062622.8	79..101	88.7520	87.90197
60122.5	5302500.3	80..102	53.48121	34.42076
36168.2	4616332.1	81..103	26.96925	7.45151

Difference of Age Twenty-Three Years.

D.	N.	Ages.	D.	N.
566568.	232318723.1	10 & 33	8270676.3	115505658.8
419102.7	214899620.4	11.. 34	7799799.9	107705858.9
216682.2	199682938.2	12.. 35	7352526.7	100353332.2
516523.9	186166414.3	13.. 36	6928922.0	93424410.2
352009.4	173814404.9	14.. 37	6526583.4	86897826.8
891420.6	162422984.3	15.. 38	6143607.4	80754219.4
513688.8	151809295.5	16.. 39	5777412.6	74976806.8
933294.3	141876001.2	17.. 40	5426314.7	69550492.1
326747.6	132549253.6	18.. 41	5089679.1	64460813.0
772918.5	123776335.1	19.. 42	4769970.7	59690842.3

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Three Years—continued.

Ages.	D.	N.	Ages.	D.	N.
20 &43	4467417.9	55223424.4	51 & 74	307423.9	1482476.7
21..44	4182957.1	51040467.3	52.. 75	263833.9	1218642.8
22..45	3916206.3	47124261.0	53.. 76	224884.6	993758.2
23..46	3666246.7	43459014.3	54.. 77	189923.9	803834.3
24..47	3432043.7	40025970.6	55.. 78	159479.5	644354.8
25..48	3213335.2	36812635.4	56.. 79	133566.9	510787.90
26..49	3009934.8	33802700.6	57.. 80	110539.76	400248.14
27..50	2819976.3	30982724.3	58.. 81	90962.67	309285.47
28..51	2641651.4	29341072.9	59.. 82	73573.85	235712.63
29..52	2470091.4	25870981.5	60.. 83	58788.86	176923.76
30..53	2304915.0	23566066.5	61.. 84	46169.31	130754.45
31..54	2148119.3	21417947.2	62.. 85	35835.63	94918.82
32..55	2000260.0	19417687.2	63.. 86	27223.70	67695.12
33..56	1860774.7	17556912.5	64.. 87	20207.80	47487.32
34..57	1729255.8	15827656.7	65.. 88	14553.71	32933.61
35..58	1603759.8	14223896.9	66.. 89	10419.02	22514.59
36..59	1482188.3	12741708.6	67.. 90	7539.47	14975.12
37..60	1363715.6	11377993.0	68.. 91	5064.36	9910.756
38..61	1247596.9	10130396.1	69.. 92	3300.836	6610.420
39..62	1138294.9	8992101.2	70.. 93	2162.575	4447.345
40..63	1036076.5	7956024.7	71.. 94	1453.757	2993.588
41..64	941136.9	7014887.8	72.. 95	981.964	2011.624
42..65	852878.8	6162009.0	73.. 96	671.339	1340.285
43..66	771370.5	5390638.5	74.. 97	463.495	876.790
44..67	696474.4	4694164.1	75.. 98	313.868	562.922
45..68	627474.0	4066690.1	76.. 99	213.449	349.4742
46..69	564093.6	3502606.5	77..100	149.9108	199.9731
47..70	505679.3	2996927.2	78..101	99.5895	99.9739
48..71	452210.8	2544716.4	79..102	60.6000	39.30956
49..72	401595.8	2143120.6	80..103	30.70692	8.60264
50..73	353220.0	1789900.6			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 &24	20587522.	219371082.0	15 & 39	5813400.3	75640035.1
1..25	16550758.2	202820323.8	16.. 40	5462961.3	70177073.8
2..26	14454913.2	188365410.6	17.. 41	5125115.7	65051958.1
3..27	12839170.8	175526239.8	18.. 42	4803414.1	60248544.8
4..28	11729286.2	163797953.6	19.. 43	4498961.3	55749582.7
5..29	10806057.9	152991893.7	20.. 44	4212701.9	51536880.8
6..30	10056820.2	142935075.5	21.. 45	3943596.9	47593283.9
7..31	9409512.4	133525563.1	22.. 46	3692069.0	43901214.1
8..32	8834034.2	124691534.9	23.. 47	3456388.5	40444825.6
9..33	8312925.9	116378609.0	24.. 48	3236291.7	37208533.9
10..34	7834972.4	108543636.6	25.. 49	3032112.2	34175421.7
11..35	7388140.5	101155496.1	26.. 50	2840908.2	31335513.5
12..36	6963740.8	94191755.3	27.. 51	2662332.3	28673181.2
13..37	6560581.3	87631174.0	28.. 52	2491766.4	26181414.8
14..38	6177738.6	81453435.4	29.. 53	2327772.6	23853642.2

TABLE XXX.   733

ry Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Four Years—continued.

D.	N.	Ages.	D.	N.
170042.7	21683579.5	55 & 79	136004.5	525413.85
920865.0	19662694.5	56.. 80	112680.70	412732.65
379817.8	17782876.7	57.. 81	92904.09	319828.56
746813.3	16036063.4	58.. 82	75397.95	244430.61
520210.1	14415853.3	59.. 83	60499.43	183931.18
197549.2	12918304.1	60.. 84	47769.04	136162.14
878259.0	11540045.1	61.. 85	37165.62	98996.52
561288.4	10278756.7	62.. 86	28281.65	70714.87
51149.4	9127607.3	63.. 87	21011.46	49703.41
918529.8	8079077.5	64.. 88	15156.50	34546.91
153537.6	7125539.9	65.. 89	10865.45	23681.46
464791.4	6260748.5	66.. 90	7874.13	15807.33
882618.8	5478129.7	67.. 91	5299.60	10507.725
06780.7	4771349.0	68.. 92	3461.629	7046.096
386898.7	4134450.3	69.. 93	2274.261	4771.835
72562.4	3561887.9	70.. 94	1532.925	3238.910
13284.4	3048603.5	71.. 95	1043.365	2195.545
58912.4	2589691.1	72.. 96	720.420	1475.125
07271.3	2182419.8	73.. 97	502.770	972.355
58120.2	1824299.6	74.. 98	344.972	627.383
11605.0	1512694.6	75.. 99	235.989	391.3936
67659.3	1245035.3	76..100	167.1191	224.2745
28355.9	1016679.4	77..101	111.5763	112.6982
93041.2	823638.2	78..102	68.0721	44.6261
62220.3	661417.9	79..103	34.8312	9.79488

Difference of Age Twenty-Five Years.

D.	N.	Ages.	D.	N.
561232.	207049427.0	20 & 45	3971639.7	48052949.8
722203.6	191327223.4	21.. 46	3717892.7	44335057.1
730534.8	177596688.6	22.. 47	3460733.4	40854323.7
190848.1	165405840.5	23.. 48	3259247.9	37595076.8
125613.4	154280227.1	24.. 49	3053773.9	34541301.9
239096.4	144041130.7	25.. 50	2861840.3	31679461.6
526524.9	134514605.8	26.. 51	2682094.3	28997367.3
912420.8	125602185.0	27.. 52	2511274.0	26486093.3
367978.3	117234206.7	28.. 53	2348219.0	24137874.3
874996.3	109359210.4	29.. 54	2191581.8	21946292.5
421456.6	101937753.8	30.. 55	2041510.0	19904782.5
997471.4	94940282.4	31.. 56	1899200.9	18005581.6
593549.1	88346733.3	32.. 57	1764690.2	16240891.4
209919.3	82136814.0	33.. 58	1636660.5	14604230.9
845697.0	76291117.0	34.. 59	1512910.1	13091320.8
496990.3	70794126.7	35.. 60	1392542.9	11698777.9
159728.2	65634398.5	36.. 61	1274739.5	10424038.4
836857.6	60797540.9	37.. 62	1163782.3	9260256.1
530504.6	56267036.3	38.. 63	1060370.7	8199885.4
242446.8	52024589.5	39.. 64	964998.9	7234886.5

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Five Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
40 & 65	876186.1	6358700.4	60 & 85	38453.38	103074.40
41..66	793550.2	5565150.2	61.. 86	29331.29	73743.11
42..67	717087.2	4848063.0	62.. 87	21828.02	51915.09
43..68	646323.4	4201739.6	63.. 88	15759.29	36155.80
44..69	581162.5	3620577.1	64.. 89	11315.48	24840.32
45..70	520999.6	3099577.5	65.. 90	8211.53	16628.79
46..71	465814.0	2633763.5	66.. 91	5534.85	11093.941
47..72	413307.0	2220456.5	67.. 92	3622.422	7471.519
48..73	363181.1	1857275.4	68.. 93	2385.047	5086.472
49..74	315928.1	1541347.3	69.. 94	1612.093	3474.379
50..75	271299.7	1270047.6	70.. 95	1100.185	2374.194
51..76	231666.9	1038380.7	71.. 96	765.468	1608.726
52..77	196021.0	842359.7	72.. 97	539.529	1069.197
53..78	164883.0	677476.7	73.. 98	374.205	694.992
54..79	138342.0	539134.7	74.. 99	259.379	435.6132
55..80	114737.12	424397.62	75..100	184.7687	250.8445
56..81	94703.47	329694.15	76..101	124.3842	126.4503
57..82	77007.18	252686.97	77..102	76.2654	50.1949
58..83	62000.22	190686.75	78..103	39.0845	11.1104
59..84	49158.97	141527.78			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 26	18581969.	195323224.4	25 & 51	2701855.9	29313402.9
1..27	14934317.3	180393907.1	26.. 52	2529914.5	26783488.4
2..28	13037201.9	167356705.2	27.. 53	2366602.8	24416885.6
3..29	11564405.8	155792299.4	28.. 54	2210812.8	22206072.8
4..30	10541885.7	145250413.7	29.. 55	2061773.0	20144299.8
5..31	9699189.5	135551224.2	30.. 56	1918583.9	18225715.9
6..32	9023251.5	126527972.7	31.. 57	1782886.1	16442829.8
7..33	8442235.2	118085737.5	32.. 58	1653409.9	14789419.9
8..34	7927148.5	110158589.0	33.. 59	1528271.0	13261148.9
9..35	7459368.1	102699220.9	34.. 60	1406826.7	11854322.2
10..36	7029025.8	95670195.1	35.. 61	1287950.4	10566371.8
11..37	6625486.6	89044708.5	36.. 62	1176193.7	9390178.1
12..38	6241125.0	82803583.5	37.. 63	1072007.5	8318170.6
13..39	5876148.1	76927435.4	38.. 64	975896.4	7342274.2
14..40	5527529.1	71399906.3	39.. 65	886717.6	6455556.6
15..41	5191868.3	66208038.0	40.. 66	804006.2	5651550.4
16..42	4869523.3	61338514.7	41.. 67	727103.2	4924447.2
17..43	4562047.9	56776466.8	42.. 68	655748.2	4268699.0
18..44	4272191.6	52504275.2	43.. 69	589762.3	3678936.7
19..45	3999682.5	48504592.7	44.. 70	528825.0	3150111.7
20..46	3744330.5	44760262.2	45.. 71	472815.8	2677295.9
21..47	3505078.2	41255184.0	46.. 72	419522.7	2257773.2
22..48	3282204.2	37972979.8	47.. 73	368563.5	1889209.7
23..49	3075435.5	34897544.3	48.. 74	320392.7	1568817.0
24..50	2882285.5	32015258.8	49.. 75	275063.5	1293753.5

TABLE XXX. 735

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Six Years—continued.

Ages.	D.	N.	Ages.	D.	N.
50 & 76	234817.8	1058935.7	64 & 90	8551.64	17443.89
51.. 77	198863.2	860072.5	65.. 91	5772.00	11671.889
52.. 78	167427.9	692644.6	66.. 92	3783.216	7888.673
53.. 79	140612.5	552032.13	67.. 93	2495.833	5392.840
54.. 80	116709.03	435323.10	68.. 94	1690.622	3702.218
55.. 81	96431.81	338891.29	69.. 95	1157.004	2545.214
56.. 82	78498.65	260392.64	70.. 96	807.154	1738.060
57.. 83	63323.49	197069.15	71.. 97	573.265	1164.795
58.. 84	50378.43	146690.72	72.. 98	401.562	763.233
59.. 85	39572.25	107118.47	73.. 99	281.356	481.8765
60.. 86	30347.59	76770.88	74..100	203.0801	278.7964
61.. 87	22638.13	54132.75	75..101	137.5205	141.2759
62.. 88	16371.72	37761.03	76..102	85.0200	56.2559
63.. 89	11765.50	25995.53	77..103	43.7888	12.4671

Difference of Age Twenty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 27	17650771.	184176993.	30 & 57	1801082.1	16642507.4
1.. 28	14180100.0	169906795.1	31.. 58	1670458.6	14972048.8
2.. 29	12367268.7	157629526.5	32.. 59	1543911.2	13428137.6
3.. 30	10957655.8	146671670.7	33.. 60	1421110.5	12007027.1
4.. 31	9986012.7	136685858.0	34.. 61	1301161.3	10705865.8
5.. 32	9186794.6	127499062.4	35.. 62	1188383.4	9517482.4
6.. 33	8517219.0	118951844.4	36.. 63	1083440.0	8434042.4
7.. 34	7997493.6	110954350.8	37.. 64	986606.2	7447436.2
8.. 35	7508768.0	103445582.8	38.. 65	896731.2	6550705.0
9.. 36	7064932.6	96380650.2	39.. 66	813670.1	5737034.9
10.. 37	6655363.6	89725286.6	40.. 67	736683.7	5000351.2
11.. 38	6271355.5	83453931.1	41.. 68	664907.5	4335443.7
12.. 39	5905676.5	77548254.6	42.. 69	598362.3	3737081.4
13.. 40	5556322.8	71991931.8	43.. 70	536650.4	3200431.0
14.. 41	5220712.0	66771219.8	44.. 71	479917.7	2720513.3
15.. 42	4899855.7	61871364.1	45.. 72	475828.6	2294684.7
16.. 43	4592857.8	57278506.3	46.. 73	374106.3	1920578.4
17.. 44	4301936.6	52976569.7	47.. 74	325140.8	1595437.6
18.. 45	4027725.2	48948844.5	48.. 75	278950.7	1316486.9
19.. 46	3770700.4	45178076.1	49.. 76	238075.4	1078411.5
20.. 47	3530003.7	41648073.4	50.. 77	201567.9	876843.6
21.. 48	3305160.4	38342913.0	51.. 78	169855.6	706988.0
22.. 49	3097097.2	35245815.8	52.. 79	142782.9	564205.08
23.. 50	2902730.7	32343085.1	53.. 80	118624.60	445580.48
24.. 51	2711106.4	29632290.5	54.. 81	98089.12	347491.36
25.. 52	2548555.1	27073371.7	55.. 82	79931.24	267560.12
26.. 53	2384169.4	24689202.3	56.. 83	64549.95	203010.17
27.. 54	2228120.8	22461081.5	57.. 84	51453.67	151556.50
28.. 55	2079865.1	20381216.4	58.. 85	40553.90	111002.60
29.. 56	1937628.9	18443588.5	59.. 86	31230.61	79771.99

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
60 & 87	23422.53	56349.46	69 & 96	848.839	1661.303
61.. 88	16979.33	39370.13	70.. 97	604.484	1256.819
62.. 89	12322.74	27147.39	71.. 98	426.673	630.146
63.. 90	8891.74	18255.65	72.. 99	301.926	528.2195
64.. 91	6011.06	12244.592	73..100	220.2883	307.9313
65.. 92	3945.317	8299.275	74..101	151.1493	156.7819
66.. 93	2606.617	5692.658	75..102	93.9990	62.7829
67.. 94	1769.152	3923.506	76..103	48.8153	13.9676
68.. 95	1213.364	2710.142			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 28	16759483.	172571462.0	38 & 66	822958.8	4821027.3
1.. 29	13451531.0	159119931.0	39.. 67	745538.4	4075488.9
2.. 30	11718394.9	147401536.1	40.. 68	673609.9	3401820.5
3.. 31	10379859.4	137021676.7	41.. 69	606720.1	2795100.4
4.. 32	9458465.3	127563211.4	42.. 70	544476.0	2250624.4
5.. 33	8702134.1	118861077.3	43.. 71	487019.2	1763605.2
6.. 34	8096946.7	110764130.6	44.. 72	432284.5	1431386.7
7.. 35	7575400.2	103188730.4	45.. 73	379729.5	1961651.2
8.. 36	7111720.3	96077010.1	46.. 74	330030.7	1621620.5
9.. 37	6689361.6	89387648.5	47.. 75	283084.7	1338535.8
10.. 38	6299635.5	83088013.0	48.. 76	241440.0	1097095.8
11.. 39	5934288.1	77153730.9	49.. 77	204364.3	892731.5
12.. 40	5584244.1	71569486.8	50.. 78	172165.8	720565.7
13.. 41	5247907.5	66321579.3	51.. 79	144853.3	575712.39
14.. 42	4927077.1	61394502.2	52.. 80	120455.66	455256.73
15.. 43	4621466.8	56773035.4	53.. 81	99699.08	355557.65
16.. 44	4330989.6	52442045.8	54.. 82	81304.97	274252.68
17.. 45	4055768.0	48386277.8	55.. 83	65727.98	208524.70
18.. 46	3797206.0	44589071.8	56.. 84	52450.22	156074.48
19.. 47	3554927.2	41034144.6	57.. 85	41419.44	114655.04
20.. 48	3327663.4	37705481.3	58.. 86	32005.33	82649.71
21.. 49	3116758.8	34586722.5	59.. 87	24104.04	58545.67
22.. 50	2923175.9	31663546.6	60.. 88	17567.65	40978.02
23.. 51	2740460.5	28923086.1	61.. 89	12676.36	28301.66
24.. 52	2566762.2	26356323.9	62.. 90	9237.29	19064.37
25.. 53	2401736.2	23954587.7	63.. 91	6250.12	12814.247
26.. 54	2244659.6	21709928.1	64.. 92	4108.724	8705.523
27.. 55	2096148.0	19613780.1	65.. 93	2718.304	5967.219
28.. 56	1954629.6	17659150 5	66.. 94	1647.683	4139.538
29.. 57	1818958.8	15840191.7	67.. 95	1269.725	2869.051
30.. 58	1687507.1	14152684.6	68.. 96	890.188	1979.623
31.. 59	1559830.7	12592853.9	69.. 97	635.703	1343.920
32.. 60	1435654.0	11157199.9	70.. 98	449.907	894.013
33.. 61	1314372.3	9842827.6	71.. 99	320.606	573.2073
34.. 62	1200573.0	8642254.6	72..100	236.1936	336.8137
35.. 63	1094668.4	7547586.2	73..101	163.9573	172.8564
36.. 64	997128.0	6550458.2	74..102	103.3146	69.5418
37.. 65	906572.1	5643886.1	75..103	53.9707	15.5713

TABLE XXX. 787

atory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Twenty-Nine Years.

D.	N.	Ages.	D.	N.
15898276.	163495891.3	38 & 67	753957.6	5149322.8
12745769.3	150750122.0	39.. 68	681765.8	4467557.0
11100484.9	139649637.1	40.. 69	614714.4	3852842.6
9831305.7	129818131.4	41.. 70	552061.1	3300761.5
8959472.5	120858658.9	42.. 71	494121.1	2806640.4
8243700.9	112614958.0	43.. 72	438620.4	2368020.0
7669604.4	104945353.6	44.. 73	385433.1	1982586.9
7174529.2	97770524.4	45.. 74	334991.3	1647595.6
6733662.0	91036862.4	46.. 75	287342.1	1360253.5
6331816.3	84705046.1	47.. 76	245018.0	1115235.5
5961042.2	78744003.9	48.. 77	207252.3	907983.2
5611292.7	73132711.2	49.. 78	174554.2	733429.0
5274278.9	67858432.3	50.. 79	146823.3	586605.67
4952742.9	62905689.4	51.. 80	122202.22	464403.45
4647141.6	58258547.8	52.. 81	101238.00	363165.45
4357967.5	53900580.3	53.. 82	82639.46	280525.99
4083158.6	49817421.7	54.. 83	66857.61	213669.38
3823643.9	45993777.8	55.. 84	53407.45	160260.93
3579851.6	42413926.2	56.. 85	42221.65	118039.28
3352166.2	39061760.0	57.. 86	32688.43	85350.85
3140936.3	35920823.7	58.. 87	24701.99	60648.86
2943621.0	32977202.7	59.. 88	18078.81	42570.05
2759762.8	30217439.9	60.. 89	13115.59	29454.46
2584969.3	27632170.6	61.. 90	9580.13	19874.35
2416894.4	25213576.2	62.. 91	6493.03	13381.311
2261198.3	22952377.9	63.. 92	4272.132	9109.179
2111707.1	20840670.8	64.. 93	2830.892	6278.287
1969932.1	18870738.7	65.. 94	1926.850	4351.437
1834920.2	17035818.5	66.. 95	1326.086	3025.351
1704256.4	15331562.1	67.. 96	931.538	2093.813
1575750.2	13755811.9	68.. 97	666.669	1427.144
1450457.2	12305354.7	69.. 98	473.144	954.000
1327823.5	10977531.2	70.. 99	338.277	615.7230
1212762.7	9764768.5	71..100	251.1750	364.5480
1105896.8	8658871.7	72..101	175.9441	188.6039
1007461.9	7651409.8	73..102	112.0692	76.5347
916240.4	6735169.4	74..103	59.3193	17.2154
831889.0	5903280.4			

Difference of Age Thirty Years.

D.	N.	Ages.	D.	N.
15064141.	153937714.0	8 & 38	6373748.9	85309821.0
12073685.9	141864028.1	9.. 39	5991493.4	79318327.6
10514061.5	131349966.6	10.. 40	5636596.5	73681731.1
9312832.8	122037133.8	11.. 41	5299826.2	68381904.9
8487482.6	113549651.2	12.. 42	4977831.3	63404273.6
7809613.1	105741038.1	13.. 43	4671349.3	58732924.3
7264052.1	98476986.0	14.. 44	4382178.5	54350745.8
6793416.1	91683569.9	15.. 45	4108592.8	50242153.0

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty Years—continued.

Ages.	D.	N.	Ages.	D.	N.
16 & 46	3849466.9	46392686.1	45 & 75	291661.1	1381836.0
17.. 47	3604776.2	42787909.9	46.. 76	248702.9	1133133.1
18.. 48	3375669.2	39412340.7	47.. 77	210323.8	922809.3
19.. 49	3163113.6	36249127.1	48.. 78	177021.0	745788.3
20.. 50	2964553.0	33284574.1	49.. 79	148860.3	596928.0
21.. 51	2779065.0	30505509.1	50.. 80	123864.26	473063.73
22.. 52	2603176.4	27902332.7	51.. 81	102705.92	370357.81
23.. 53	2436052.6	25466280.1	52.. 82	83915.06	286442.75
24.. 54	2277352.7	23188927.4	53.. 83	67954.96	218487.79
25.. 55	2127266.4	21061661.0	54.. 84	54325.32	164162.47
26.. 56	1984554.4	19077106.6	55.. 85	42992.20	121170.27
27.. 57	1849285.5	17227821.1	56.. 86	33321.54	87848.73
28.. 58	1719211.4	15508609.7	57.. 87	25229.20	62619.53
29.. 59	1591390.4	13917219.3	58.. 88	18527.28	44092.25
30.. 60	1465260.5	12451958.8	59.. 89	13497.21	30595.04
31.. 61	1341515.0	11110443.8	60.. 90	9912.06	20682.98
32.. 62	1225174.0	9885269.8	61.. 91	6733.99	13948.987
33.. 63	1117125.2	8768144.6	62.. 92	4438.155	9510.832
34.. 64	1017795.8	7750348.8	63.. 93	2943.478	6567.354
35.. 65	925736.1	6824612.7	64.. 94	2006.656	4560.698
36.. 66	840760.9	5983851.8	65.. 95	1382.907	3177.791
37.. 67	762231.9	5221619.9	66.. 96	972.888	2204.903
38.. 68	689464.9	4532155.0	67.. 97	697.636	1507.267
39.. 69	622103.2	3910051.8	68.. 98	496.191	1011.076
40.. 70	559355.5	3350696.3	69.. 99	355.747	655.3294
41.. 71	501022.8	2849673.5	70..100	264.8535	390.4759
42.. 72	445016.6	2404656.9	71..101	186.9458	203.5301
43.. 73	391136.7	2013520.2	72..102	120.2626	83.2675
44.. 74	340023.1	1673497.1	73..103	64.3459	18.9216

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 31	14269810.	144873291.0	15 & 46	3873445.4	46785668.8
1.. 32	11435849.5	133437441.5	16.. 47	3629120.9	43156347.9
2.. 33	9959379.4	123478062.1	17.. 48	3399171.9	39757376.0
3.. 34	8822227.6	114655834.5	18.. 49	3185290.9	36572085.1
4.. 35	8039528.4	106616306.1	19.. 50	2985485.0	33586600.1
5.. 36	7395710.4	99220595.7	20.. 51	2798826.8	30787773.3
6.. 37	6877895.8	92342699.9	21.. 52	2621383.4	28166389.9
7.. 38	6430309.1	85912390.8	22.. 53	2453210.7	25713179.2
8.. 39	6031172.1	79881218.7	23.. 54	2293506.8	23419672.4
9.. 40	5665390.1	74215828.6	24.. 55	2142463.7	21277208.7
10.. 41	5323725.3	68892103.3	25.. 56	1999176.6	19278032.1
11.. 42	5001741.6	63890361.7	26.. 57	1863012.2	17415019.9
12.. 43	4694823.4	59195538.3	27.. 58	1732670.7	15682349.2
13.. 44	4405005.8	54790532.5	28.. 59	1605354.7	14076994.5
14.. 45	4131418.3	50659114.2	29.. 60	1479804.0	12597190.5

TABLE XXX. 739

ratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty-One Years—continued.

D.	N.	Ages.	D.	N.
1355206.4	11241984.1	52 & 83	69003.89	223033.97
1237807.0	10004177.1	53.. 84	55216.97	167817.00
1128557.8	8875619.3	54.. 85	43731.08	124085.92
1028129.7	7847489.6	55.. 86	33929.65	90156.27
935231.6	6912258.0	56.. 87	25717.84	64438.43
849474.0	6062784.0	57.. 88	18922.72	45515.71
770360.7	5292423.3	58.. 89	13832.03	31683.68
697031.1	4595392.2	59.. 90	10200.47	21483.21
629128.4	3966263.8	60.. 91	6967.32	14515.885
566078.8	3400185.0	61.. 92	4602.869	9913.016
507624.4	2892560.6	62.. 93	3057.866	6855.150
451232.4	2441328.2	63.. 94	2086.462	4768.658
396840.3	2044487.9	64.. 95	1440.184	3328.504
345054.5	1699433.4	65.. 96	1014.573	2313.931
296041.9	1403391.5	66.. 97	728.602	1585.329
252441.2	1150950.3	67.. 98	519.239	1066.090
213486.9	937463.4	68.. 99	373.074	693.0158
179644.3	757819.1	69..100	278.5318	414.4840
150964.0	606855.06	70..101	197.1264	217.3576
125582.64	481272.42	71..102	127.7825	89.5751
104102.78	377169.64	72..103	69.0502	20.5249
85131.78	292037.86			

Difference of Age Thirty-Two Years.

D.	N.	Ages.	D.	N.
13515955.	136277992.2	22 & 54	2309661.0	23645079.8
10832537.5	125445454.7	23.. 55	2157661.1	21487418.7
9434713.8	116010740.9	24.. 56	2013459.0	19473959.7
8356606.1	107654134.8	25.. 57	1876739.0	17597220.7
7614415.3	100039719.5	26.. 58	1745531.8	15851688.9
7002555.2	93037164.3	27.. 59	1617922.6	14233766.3
6510273.4	86526890.9	28.. 60	1492789.3	12740977.0
6084692.2	80442198.7	29.. 61	1368657.4	11372319.6
5702909.3	74739289.4	30.. 62	1250440.0	10121879.6
5350920.7	69388368.7	31.. 63	1140194.5	8981685.1
5024296.4	64364072.3	32.. 64	1038651.4	7943033.7
4717564.0	59646508.3	33.. 65	944727.2	6998306.5
4427141.6	55219366.7	34.. 66	858187.4	6140119.1
4152939.4	51060427.3	35.. 67	778344.4	5361774.7
3894964.6	47171462.7	36.. 68	704464.8	4657309.9
3651727.0	43519735.7	37.. 69	636032.6	4021277.3
3422128.3	40097607.4	38.. 70	572471.3	3448806.0
3207468.3	36890139.1	39.. 71	513725.9	2935080.1
3006416.9	33883722.2	40.. 72	457178.0	2477902.1
2818588.6	31065133.6	41.. 73	402383.3	2075518.8
2640024.0	28425109.6	42.. 74	350086.2	1725432.6
2470368.8	25954740.8	43.. 75	300422.7	1425009.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 & 76	256232.9	1168777.0	58 & 90	10453.51	22247.41
45.. 77	216695.8	952081.2	59.. 91	7170.04	15077.369
46.. 78	182346.1	769735.1	60.. 92	4762.355	10315.014
47.. 79	153201.2	616533.86	61.. 93	3171.356	7143.658
48.. 80	127357.36	489176.50	62.. 94	2167.547	4976.111
49.. 81	105547.00	383629.50	63.. 95	1497.462	3478.649
50.. 82	86289.63	297339.87	64.. 96	1056.594	2422.055
51.. 83	70004.41	227335.46	65.. 97	759.822	1662.233
52.. 84	56069.28	171266.18	66.. 98	542.286	1119.947
53.. 85	44448.84	126817.34	67.. 99	390.405	729.5416
54.. 86	34512.78	92304.56	68..100	292.0999	437.4417
55.. 87	26157.19	66117.37	69..101	207.3070	230.1347
56.. 88	19289.21	46828.16	70..102	134.7412	95.3935
57.. 89	14127.24	32700.92	71..103	73.3679	22.0256

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 33	12802905.	128126245.6	30 & 63	1151831.2	9086694.5
1.. 34	10261873.3	117864372.3	31.. 64	1049361.1	8037333.4
2.. 35	8936766.4	108927605.9	32.. 65	954395.4	7082938.0
3.. 36	7914726.6	101012879.3	33.. 66	866900 8	6216037.2
4.. 37	7209633.8	93803245.5	34.. 67	786328.2	5429709.0
5.. 38	6628269.7	87174975.8	35.. 68	711765.6	4717943.4
6.. 39	6160358.7	81014617.1	36.. 69	642815.6	4075127.8
7.. 40	5753516.5	75261100.6	37.. 70	578753.9	3496373.9
8.. 41	5386357.3	69874743.3	38.. 71	519527.4	2976846.5
9.. 42	5049962.4	64824780.9	39.. 72	462673.1	2514173.4
10.. 43	4738837.4	60085943.5	40.. 73	407685.2	2106488.2
11.. 44	4448585.5	55637358.0	41.. 74	354976.1	1751512.1
12.. 45	4173808.5	51463549.5	42.. 75	304803.4	1446708.7
13.. 46	3915253.9	47548295.6	43.. 76	260024.5	1186684.2
14.. 47	3672014.4	43876281.2	44.. 77	219950.6	966733.6
15.. 48	3443444.9	40432836.3	45.. 78	185086.9	781646.7
16.. 49	3229129.9	37203706.4	46.. 79	155505.2	626141.48
17.. 50	3027349.0	34176357.4	47.. 80	129244.76	496896.72
18.. 51	2833350.4	31338007.0	48.. 81	107033.60	389858.12
19.. 52	2658664.5	28679342.5	49.. 82	87486.73	302371.39
20.. 53	2487935.6	26191406.9	50.. 83	70956.52	231414.87
21.. 54	2325815.1	23865591.8	51.. 84	56882.26	174532.61
22.. 55	2172858.4	21692733.4	52.. 85	45134.94	129397.67
23.. 56	2027741.2	19664992.2	53.. 86	35079.25	94318.42
24.. 57	1890146.5	17774845.7	54.. 87	26637.26	67681.16
25.. 58	1758393.0	16016452.7	55.. 88	19641.24	48039.92
26.. 59	1629932.3	14386520.4	56.. 89	14400.87	33639.05
27.. 60	1504476.1	12882044.3	57.. 90	10676.63	22962.43
28.. 61	1380667.4	11501376.9	58.. 91	7347.91	15614.513
29.. 62	1262851.2	10238525.7	59.. 92	4900.924	10713.589

TABLE XXX. 741

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Three Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
60 & 93	3281.240	7432.349	66 & 99	407.733	765.5395
61.. 94	2247.991	5184.358	67..100	305.6679	459.8716
62.. 95	1555.655	3628.703	68..101	217.4055	242.4661
63.. 96	1098.616	2530.087	69..102	141.7000	100.7661
64.. 97	791.291	1738.796	70..103	77.3633	23.4028
65.. 98	565.523	1173.273			

Difference of Age Thirty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 34	12128440.	120393685.6	35 & 69	649477.5	41277850.1
1.. 35	9720270.0	110673415.6	36.. 70	584926.0	35422924.1
2.. 36	8464209.3	102209206.3	37.. 71	525228.7	3017695.4
3.. 37	7493980.7	94715225.6	38.. 72	467897.9	2549797.5
4.. 38	6824280.0	87890945.6	39.. 73	412585.5	2137212.0
5.. 39	6272012.8	81618932.8	40.. 74	359653.4	1777558.6
6.. 40	5825064.7	75793868.1	41.. 75	309060.9	1468497.7
7.. 41	5434155.4	70359712.7	42.. 76	263816.3	1204681.4
8.. 42	5083405.8	65276306.9	43.. 77	223205.4	981476.0
9.. 43	4763045.0	60513261.9	44.. 78	187866.9	793609.1
10.. 44	4468646.0	56044615.9	45.. 79	157842.6	635766.52
11.. 45	4194025.4	51850590.5	46.. 80	131188.50	504578.02
12.. 46	3934928.6	47915661.9	47.. 81	108624.86	395953.16
13.. 47	3691142.3	44224519.6	48.. 82	88723.09	307230.07
14.. 48	3462575.1	40761944.5	49.. 83	71940.91	235289.16
15.. 49	3249244.3	37512700.2	50.. 84	57655.90	177633.26
16.. 50	3047794.2	34464906.0	51.. 85	45789.37	131843.89
17.. 51	2858112.3	31606793.7	52.. 86	35620.72	96223.17
18.. 52	2677305.1	28929488.6	53.. 87	27074.45	69148.72
19.. 53	2505502.3	26423986.3	54.. 88	19978.80	49169.92
20.. 54	2342353.9	24081632.4	55.. 89	14663.68	34506.24
21.. 55	2188055.7	21893576.7	56.. 90	10883.41	23622.83
22.. 56	2042023.6	19851553.1	57.. 91	7504.74	16118.089
23.. 57	1903554.1	17947999.0	58.. 92	5022.500	11095.589
24.. 58	1770955.2	16177043.8	59.. 93	3376.713	7718.876
25.. 59	1641941.6	14535102.2	60.. 94	2325.882	5392.994
26.. 60	1515643.4	13019458.8	61.. 95	1613.391	3779.603
27.. 61	1391476.4	11627982.4	62.. 96	1141.310	2638.293
28.. 62	1273932.7	10354049.7	63.. 97	822.763	1815.530
29.. 63	1163263.8	9190785.9	64.. 98	588.946	1226.584
30.. 64	1060070.9	8130715.0	65.. 99	425.205	801.3788
31.. 65	964236.4	7166478.6	66..100	319.2360	482.1428
32.. 66	875772.7	6290705.9	67..101	227.5041	254.6387
33.. 67	794311.9	5496394.0	68..102	148.6025	106.0362
34.. 68	719066.4	4777327.6	69..103	81.3588	24.6774

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 35	11468323.0	113058994.1	35 & 70	590990.0	3504054.1
1.. 36	9206283.0	103852711.1	36.. 71	530830.2	3057659.4
2.. 37	8014252.9	95838458.2	37.. 72	473032.9	2584628.5
3.. 38	7093428.7	88745029.5	38.. 73	417244.7	2167381.8
4.. 39	6457488.2	82287541.3	39.. 74	363976.4	1803405.4
5.. 40	5930641.8	76356899.5	40.. 75	313133.2	1490372.2
6.. 41	5501732.2	70855167.3	41.. 76	267501.1	1222771.1
7.. 42	5128515.6	65726651.7	42.. 77	226460.2	996310.9
8.. 43	4794588.5	60932063.2	43.. 78	190647.0	805663.9
9.. 44	4491473.6	56440589.6	44.. 79	160213.5	645450.41
10.. 45	4212937.9	52227651.7	45.. 80	133160.41	512290.06
11.. 46	3953988.4	48273663.3	46.. 81	110258.51	402031.49
12.. 47	3709690.9	44563972.4	47.. 82	90037.95	311993.54
13.. 48	3480612.2	41083360.2	48.. 83	72957.58	239035.96
14.. 49	3267295.7	37816064.5	49.. 84	58455.77	180580.70
15.. 50	3066779.0	34749285.5	50.. 85	46412.15	134164.04
16.. 51	2877414.6	31871870.9	51.. 86	36137.21	98030.83
17.. 52	2693945.7	29175925.2	52.. 87	27492.37	70538.46
18.. 53	2523069.0	26652856.2	53.. 88	20306.71	50231.75
19.. 54	2358892.8	24293963.4	54.. 89	14915.70	35315.04
20.. 55	2203614.9	22090348.5	55.. 90	11082.03	24234.05
21.. 56	2056305.9	20034042.6	56.. 91	7650.10	16583.917
22.. 57	1916961.7	18117080.9	57.. 92	5129.696	11454.221
23.. 58	1783517.3	16333563.6	58.. 93	3460.479	7993.742
24.. 59	1653672.0	14679891.6	59.. 94	2393.656	5600.123
25.. 60	1526810.8	13153080.8	60.. 95	1669.295	3930.888
26.. 61	1401805.1	11751275.7	61.. 96	1183.668	2747.220
27.. 62	1283906.1	10467369.6	62.. 97	854.737	1892.483
28.. 63	1173471.4	9293898.2	63.. 98	612.369	1280.114
29.. 64	1070592.6	8223305.6	64.. 99	442.816	837.3968
30.. 65	974077.3	7249228.3	65..100	332.9146	504.3816
31.. 66	884602.9	6364425.4	66..101	237.6026	266.7790
32.. 67	802440.9	5561984.5	67..102	155.5052	111.2738
33.. 68	726867.3	4835617.2	68..103	85.3220	25.9516
34.. 69	656139.6	4179477.6			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 36	10680845.	106101719.0	10 & 46	3971818.5	46622384.1
1.. 37	8716877.9	97384840.1	11.. 47	3727659.7	44894794.4
2.. 38	7585892.3	89798947.8	12.. 48	3498102.7	41396621.7
3.. 39	6712170.4	83086777.4	13.. 49	3284315.5	38112306.2
4.. 40	6106021.8	76980755.6	14.. 50	3083816.7	35028489.5
5.. 41	5601448.9	71379306.7	15.. 51	2895338.1	32133151.4
6.. 42	5192291.5	66187015.2	16.. 52	2714152.8	29418998.6
7.. 43	4837135.2	61349880.0	17.. 53	2540635.7	26878362.9
8.. 44	4521218.3	56828661.7	18.. 54	2375431.4	24502931.5
9.. 45	4234459.1	52594202.6	19.. 55	2219174.1	22127757.4

TABLE XXX.

ry Table for finding the Values of Annuities, &c. on Two Joint Live
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Six Years—*continued*.

D.	N.	Ages.	D.	N.
0928.1	20212829.3	44 & 80	135160.49	520062.40
0369.2	15282460.1	45.. 81	111915.82	408146.58
6079.4	16486360.7	46.. 82	91392.05	316754.53
5401.9	14820978.8	47.. 83	74038.78	242715.75
7718.4	13253260.4	48.. 84	59281.86	183433.89
2133.5	11871126.9	49.. 85	47056.02	136377.87
3436.3	10577690.6	50.. 86	36628.69	99749.18
2658.4	9395032.2	51.. 87	27890.99	71858.19
9987.0	8315045.2	52.. 88	20620.16	51238.03
3745.4	7331299.8	53.. 89	15160.51	36077.52
3833.1	6437466.7	54.. 90	11272.49	24805.03
0715.0	5626751.7	55.. 91	7789.72	17015.311
3800.8	4892950.9	56.. 92	5229.048	11786.263
2801.4	4230149.5	57.. 93	3534.335	8251.928
7050.0	3633099.5	58.. 94	2452.935	5798.993
5331.4	3096768.1	59.. 95	1717.864	4081.129
3077.6	2618690.5	60.. 96	1224.681	2856.448
1823.6	2196866.9	61.. 97	886.459	1969.989
3086.6	1828780.3	62.. 98	636.167	1333.822
5896.9	1511883.4	63.. 99	460.427	873.3952
1025.8	1240857.6	64..100	346.7033	526.6919
9623.4	1011234.2	65..101	247.7832	278.9087
3427.0	817807.2	66..102	162.4076	116.5011
2584.3	655222.89	67..103	89.2852	27.2159

Difference of Age Thirty-Seven Years.

D.	N.	Ages.	D.	N.
02421.	99504027.8	21 & 58	1808641.4	16635842.9
50962.2	91253065.6	22.. 59	1677132.1	14958710.8
78165.1	84074900.5	23.. 60	1548626.0	13410084.8
46842.5	77728058.0	24.. 61	1422222.0	11987862.8
67094.2	71960963.8	25.. 62	1302966.4	10684896.4
86399.9	66674563.9	26.. 63	1191436.9	9493459.5
97287.7	61777276.2	27.. 64	1088442.0	8405017.5
61339.3	57215936.9	28.. 65	992377.9	7412639.6
62501.9	52953435.0	29.. 66	902704.9	6509934.7
92108.0	48961327.0	30.. 67	818989.1	5690945.6
44469.2	45216857.8	31.. 68	741367.2	4949578.4
15046.6	41701811.2	32.. 69	669584.5	4279993.9
00819.6	38400991.6	33.. 70	603111.9	3676882.0
99880.7	35301110.9	34.. 71	541832.7	3135049.3
11423.3	32389687.6	35.. 72	483032.2	2652017.1
31059.3	29658628.3	36.. 73	426322.2	2225694.9
57793.9	27100834.4	37.. 74	372126.2	1853568.7
91970.3	24708864.1	38.. 75	320475.6	1533093.1
34733.3	22474130.8	39.. 76	274283.4	1258809.7
85550.5	20388580.3	40.. 77	232648.9	1026160.8
44096.0	18444484.3	41.. 78	196128.8	830032.0

Preparatory Table for finding the Values of Annuities, &c. on Two Join
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
42 & 79	164955.0	665077.04	55 & 92	5324.478	1209
43.. 80	137160.58	527916.46	56.. 93	3602.789	845
44.. 81	113596.79	414319.67	57.. 94	2505.288	598
45.. 82	92765 77	321553.90	58.. 95	1760.478	42:
46.. 83	75152.27	246401.63	59.. 96	1260.316	296
47.. 84	60160.40	166241.23	60.. 97	917.173	204
48.. 85	47721.03	138520.20	61.. 98	659.778	138
49.. 86	37136.85	101383.35	62.. 99	478.321	90
50.. 87	28270.33	73113.02	63..100	360.4918	54
51.. 88	20919.15	52193.87	64..101	258.0459	29
52.. 89	15394.52	36799.35	65..102	169.3665	19
53.. 90	11457.51	25341.84	66..103	93.2484	:
54.. 91	7923.59	17418.254			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 38	9751758.	93248712.1	33 & 71	547334.1	31726
1.. 39	7807488.9	85441223.2	34.. 72	487986.8	26846
2.. 40	6787474.3	78653748.9	35.. 73	430740.5	22535
3.. 41	5994547.6	72659201.3	36.. 74	376094.7	18777
4.. 42	5442728.5	67216472.8	37.. 75	323992.6	15535
5.. 43	4986049.1	62230423.7	38.. 76	277380.9	12764
6.. 44	4618062.0	57612361.7	39.. 77	235445.3	10409
7.. 45	4300327.0	53312034.7	40.. 78	198713.1	8420
8.. 46	4018545.9	49293488.8	41.. 79	167259.1	6750
9.. 47	3763597.3	45529891.5	42.. 80	139160.65	5358
10.. 48	3530897.4	41998994.1	43.. 81	115277.79	4205
11.. 49	3313908.0	38682186.1	44.. 82	94159.11	3264
12.. 50	3115458.0	35566728.1	45.. 83	76281.90	2501
13.. 51	2926589.3	32640138.8	46.. 84	61065.16	1890
14.. 52	2746231.8	29893907.0	47.. 85	48428.23	1406
15.. 53	2573726.5	27320180.5	48.. 86	37661.67	1029
16.. 54	2408124.4	24912056.1	49.. 87	28662.52	740
17.. 55	2250292.5	22661763.6	50.. 88	21203.66	531
18.. 56	2100172.7	20561590.9	51.. 89	15617.74	374
19.. 57	1957822.9	18603768.0	52.. 90	11634.36	258
20.. 58	1821502.6	16782265.4	53.. 91	8053.64	177
21.. 59	1688862.3	15093403.1	54.. 92	5415.986	123
22.. 60	1559533.5	13533869.6	55.. 93	3668.539	87
23.. 61	1432310.3	12101559.3	56.. 94	2553.811	61
24.. 62	1312274.8	10789284.5	57.. 95	1798.053	43
25.. 63	1200215.5	9589069.0	58.. 96	1291.580	30
26.. 64	1096521.4	8492547.6	59.. 97	943.858	21
27.. 65	1000147.0	7492400.6	60.. 98	682.638	14
28.. 66	910026.2	6581774.4	61.. 99	496.074	9
29.. 67	827117.9	5754656.5	62..100	374.5012	5
30.. 68	748933.5	5005723.0	63..101	268.3087	3
31.. 69	676488.6	4329234.4	64..102	176.3813	1
32.. 70	609284.1	3719950.3	65..103	97.2440	

TABLE XXX. 745

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Thirty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 39	9227620.	87319092.3	33 & 72	492941.5	2716626.6
1.. 40	7382545.2	79936547.1	34.. 73	435158.7	2281467.9
2.. 41	6410721.1	73525826.0	35.. 74	379992.4	1901475.5
3.. 42	5657389.0	67868437.0	36.. 75	327447.8	1574027.7
4.. 43	5133495.9	62734941.1	37.. 76	280424.9	1293602.8
5.. 44	4701762.7	58033178.4	38.. 77	238104.2	1055498.6
6.. 45	4353803.9	53679374.5	39.. 78	201101.5	854397.1
7.. 46	4054206.1	49625168.4	40.. 79	169463.0	684934.05
8.. 47	3788521.8	45836646.6	41.. 80	141104.41	543829.64
9.. 48	3548934.4	42287712.2	42.. 81	115958.77	426870.87
10.. 49	3331764.8	38955947.4	43.. 82	95552.48	331318.39
11.. 50	3130548.5	35825398.9	44.. 83	77427.66	253890.73
12.. 51	2941295.9	32884103.0	45.. 84	61983.04	191907.69
13.. 52	2760537.4	30123565.6	46.. 85	49156.56	142751.13
14.. 53	2588024.9	27535540.7	47.. 86	38219.79	104531.34
15.. 54	2423124.8	25112415.9	48.. 87	29067.59	75463.75
16.. 55	2265489.9	22846926.0	49.. 88	21497.83	53965.92
17.. 56	2114795.1	20732130.9	50.. 89	15830.15	38135.77
18.. 57	1971549.5	18760581.4	51.. 90	11803.05	26332.72
19.. 58	1834363.8	16926217.6	52.. 91	8177.95	18154.767
20.. 59	1700871.7	15225345.9	53.. 92	5504.880	12649.887
21.. 60	1570441.3	13654904.6	54.. 93	3731.589	8918.298
22.. 61	1442398.8	12212505.8	55.. 94	2600.418	6317.680
23.. 62	1321583.3	10890922.5	56.. 95	1832.879	4485.001
24.. 63	1208790.0	9682132.5	57.. 96	1319.146	3165.855
25.. 64	1104600.5	8577532.0	58.. 97	967.273	2198.582
26.. 65	1007570.8	7569961.2	59.. 98	702.500	1496.082
27.. 66	917755.3	6652205.9	60.. 99	513.260	982.8224
28.. 67	834375.9	5817830.0	61..100	388.4003	594.4221
29.. 68	756367.0	5061463.0	62..101	278.7355	315.6866
30.. 69	683392.7	4378070.3	63..102	183.3962	132.2904
31.. 70	615566.6	3762503.7	64..103	101.2716	31.0088
32.. 71	552935.6	3209568.1			

Difference of Age Forty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 40	8725382.	81702216.2	12 & 52	2774409.5	30347218.4
1.. 41	6972761.5	74729454.7	13.. 53	2601506.4	27745712.0
2.. 42	6050155.2	68679299.5	14.. 54	2436586.6	25309125.4
3.. 43	5335960.2	63343339.3	15.. 55	2279601.7	23029523.7
4.. 44	4840802.7	58502536.6	16.. 56	2129077.4	20900446.3
5.. 45	4432715.0	54069821.6	17.. 57	1985276.4	18915169.9
6.. 46	4104622.4	49965199.2	18.. 58	1847224.9	17067945.0
7.. 47	3822140.9	46143058.3	19.. 59	1712881.2	15355063.8
8.. 48	3572437.5	42570620.8	20.. 60	1581608.7	13773455.1
9.. 49	3348784.7	39221836.1	21.. 61	1452487.2	12320967.9
10.. 50	3144665.4	36077170.7	22.. 62	1330691.9	10990076.0
11.. 51	2955542.8	33121627.9	23.. 63	1217364.4	9772711.6

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
24 & 64	1112492.0	8660219.6	44 & 84	62914.04	194793.88
25.. 65	1014994.7	7645224.9	45.. 85	49895.44	144898.44
26.. 66	924567.5	6720657.4	46.. 86	38794.60	106103.84
27.. 67	840908.2	5879749.2	47.. 87	29498.37	76605.47
28.. 68	763004.2	5116745.0	48.. 88	21801.63	54803.84
29.. 69	690175.9	4426569.1	49.. 89	16049.77	38754.07
30.. 70	621849.0	3804720.1	50.. 90	11963.60	26790.47
31.. 71	558636.9	3246083.2	51.. 91	8296.54	18493.931
32.. 72	497986.3	2748096.9	52.. 92	5589.852	12904.079
33.. 73	439577.0	2308519.9	53.. 93	3792.836	9111.243
34.. 74	383890.3	1924629.6	54.. 94	2645.109	6466.134
35.. 75	330841.4	1593788.2	55.. 95	1866.329	4599.805
36.. 76	283415.5	1310372.7	56.. 96	1344.696	3255.109
37.. 77	240717.1	1069655.6	57.. 97	987.919	2267.190
38.. 78	203372.5	866283.1	58.. 98	719.928	1547.262
39.. 79	171499.9	694783.24	59.. 99	528.197	1019.064
40.. 80	142963.64	551819.60	60..100	401.8581	617.206
41.. 81	118592.42	433227.18	61..101	289.0804	328.196
42.. 82	96945.84	336281.34	62..102	190.5233	137.602
43.. 83	78573.42	257707.92	63..103	105.2994	32.303

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	8241061.	76388655.5	23 & 64	1120383.2	8740662.9
1.. 42	6580583.9	69808071.6	24.. 65	1022245.9	7718417.0
2.. 43	5706411.0	64101660.6	25.. 66	931379.7	6787037.3
3.. 44	5031723.2	59069937.4	26.. 67	847149.9	5939887.4
4.. 45	4563798.7	54506138.7	27.. 68	768977.6	5170909.8
5.. 46	4179017.1	50327121.6	28.. 69	696232.0	4474677.8
6.. 47	3869671.2	46457450.4	29.. 70	628021.1	3846656.7
7.. 48	3604138.9	42853311.5	30.. 71	564338.3	3282318.4
8.. 49	3370962.0	39482349.5	31.. 72	503121.0	2779197.4
9.. 50	3160729.5	36321620.0	32.. 73	444075.5	2335121.9
10.. 51	2968370.5	33352749.5	33.. 74	387787.8	1947334.1
11.. 52	2787848.0	30564901.5	34.. 75	334234.8	1613099.3
12.. 53	2614579.3	27950322.2	35.. 76	286352.7	1326746.6
13.. 54	2449279.1	25501043.1	36.. 77	243284.3	1083462.3
14.. 55	2292266.1	23208777.0	37.. 78	205604.4	877857.9
15.. 56	2142339.4	21066437.6	38.. 79	173436.6	704421.31
16.. 57	1998683.9	19067753.7	39.. 80	144682.02	559739.29
17.. 58	1860086.2	17207667.5	40.. 81	120155.03	439584.26
18.. 59	1724890.5	15482777.0	41.. 82	98299.94	341284.32
19.. 60	1592776.1	13890000.9	42.. 83	79719.18	261565.14
20.. 61	1462815.7	12427185.2	43.. 84	63845.02	197720.12
21.. 62	1340200.3	11086984.9	44.. 85	50644.87	147075.25
22.. 63	1225938.8	9861046.1	45.. 86	39377.73	107697.52

TABLE XXX. 747

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty-One Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
46 & 87	29941.99	77755.53	55 & 96	1369.236	3336.866
47..88	22124.72	55630.81	56..97	1007.053	2329.813
48..89	16276.58	39354.23	57..98	735.293	1594.520
49..90	12129.55	27224.68	58..99	541.298	1053.2215
50..91	8409.37	18815.313	59..100	413.5508	639.6707
51..92	5670.903	13144.410	60..101	299.0968	340.5739
52..93	3851.380	9293.030	61..102	197.5943	142.9796
53..94	2688.524	6604.506	62..103	109.3914	33.5882
54..95	1898.404	4706.102			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	7777549.	71366561.3	31 & 73	448654.5	2361413.9
1..43	6206703.3	65159858.0	32..74	391756.4	1969657.5
2..44	5381052.4	59778805.6	33..75	337628.4	1632029.1
3..45	4743794.2	55035011.4	34..76	289289.9	1342739.2
4..46	4302598.4	50732413.0	35..77	245805.6	1096933.6
5..47	3939807.5	46792605.5	36..78	207797.1	889136.5
6..48	3648958.4	43143647.1	37..79	175339.9	713796.62
7..49	3400875.7	39742771.4	38..80	146315.89	567480.73
8..50	3181661.5	36561109.9	39..81	121599.25	445881.48
9..51	2984036.5	33577073.4	40..82	99595.16	346286.32
10..52	2800419.6	30776653.8	41..83	80832.67	265453.65
11..53	2627243.6	28149410.2	42..84	64776.02	200677.63
12..54	2461587.1	25687823·1	43..85	51394.30	149283.33
13..55	2304206.9	23383616.2	44..86	39969.18	109314.15
14..56	2154241.3	21229374.9	45..87	30392.05	78922.10
15..57	2011133.9	19218241.0	46..88	22457.46	56464.64
16..58	1872648.3	17345592.7	47..89	16517.80	39946.84
17..59	1736899.9	15608692.8	48..90	12300.98	27645.86
18..60	1603943.4	14004749.4	49..91	8526.04	19119.819
19..61	1473144.4	12531605.0	50..92	5748.030	13371.789
20..62	1349730.4	11181874.6	51..93	3907.224	9464.565
21..63	1234513.2	9947361.4	52..94	2730.023	6734.542
22..64	1128274.6	8819086.8	53..95	1929.563	4804.979
23..65	1029497.1	7789589.7	54..96	1392.768	3412.211
24..66	938033.6	6851556.1	55..97	1025.431	2386.780
25..67	853391.7	5998164.4	56..98	749.534	1637.246
26..68	774585.5	5223478.9	57..99	552.851	1084.3948
27..69	701682.8	4521796.1	58..100	423.8097	660.5851
28..70	633532.1	3888264.0	59..101	307.7996	352.7855
29..71	569939.7	3318324.3	60..102	204.4407	148.3448
30..72	508255.9	2810068.4	61..103	113.4513	34.8935

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Li\
(Carlisle 4½ per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 43	7335662.	66623336.6	31 & 74	395795.9	1991721.9
1 .. 44	5852819.5	60770517.1	32 .. 75	341083.8	1650638.1
2 .. 45	5073133.8 '	55697383.3	33 .. 76	292227.2	1358410.9
3 .. 46	4472292.2	51225091.1	34 .. 77	248326.9	1110084.0
4 .. 47	4056315.0	47168776.1	35 .. 78	209950.6	900133.4
5 .. 48	3715094.3	43453681.8	36 .. 79	177209.8	722923.57
6 .. 49	3443167.4	40010514.4	37 .. 80	147921.59	575001.98
7 .. 50	3209895.4	36800619.0	38 .. 81	122972.45	452029.53
8 .. 51	3003798.3	33796820.7	39 .. 82	100792.27	351237.26
9 .. 52	2814725.1	30982095.6	40 .. 83	81897.75	269339.51
10 .. 53	2639090.9	28343004.7	41 .. 84	65680.79	203658.72
11 .. 54	2473510.4	25869494.3	42 .. 85	52143.74	151514.98
12 .. 55	2315785.8	23553708.5	43 .. 86	40560.63	110954.35
13 .. 56	2165463.0	21388245.5	44 .. 87	30848.54	80105.81
14 .. 57	2022306.8	19365938.7	45 .. 88	22795.02	57310.79
15 .. 58	1884313.1	17481625.6	46 .. 89	16766.21	40544.58
16 .. 59	1748630.1	15732995.5	47 .. 90	12483.26	28061.32
17 .. 60	1615110.8	14117884.7	48 .. 91	8646.52	19414.799
18 .. 61	1483472.8	12634411.9	49 .. 92	5827.774	13587.025
19 .. 62	1359260.6	11275151.3	50 .. 93	3960.364	9626.661
20 .. 63	1243291.8	10031859.5	51 .. 94	2769.608	6857.053
21 .. 64	1136166.0	8895693.5	52 .. 95	1959.347	4897.706
22 .. 65	1036748.3	7858945.2	53 .. 96	1415.629	3482.077
23 .. 66	944687.4	6914257.8	54 .. 97	1043.054	2439.023
24 .. 67	859488.6	6054769.2	55 .. 98	763.213	1675.810
25 .. 68	780393.4	5274375.8	56 .. 99	563.560	1112.2502
26 .. 69	706891.2	4567484.6	57 ..100	432.8550	679.3952
27 .. 70	638491.8	3928992.8	58 ..101	315.4350	363.9602
28 .. 71	574941.0	3354051.8	59 ..102	210.3893	153.5709
29 .. 72	513300.5	2840751.3	60 ..103	117.3823	36.1886
30 .. 73	453233.5	2387517.8			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	6917409.	62144474.0	14 & 58	1894781.5	17615121.6
1 .. 45	5517905.2	56626568.8	15 .. 59	1759522.5	15855599.1
2 .. 46	4782782.8	51843786.0	16 .. 60	1626018.4	14229580.7
3 .. 47	4216295.4	47627490.6	17 .. 61	1493801.4	12735779.3
4 .. 48	3824956.7	43802533.9	18 .. 62	1368790.7	11366988.6
5 .. 49	3505573.6	40296960.3	19 .. 63	1252070.3	10114918.3
6 .. 50	3249812.1	37047148.2	20 .. 64	1144245.2	8970673.1
7 .. 51	3030453.8	34016694.4	21 .. 65	1043999.5	7926673.6
8 .. 52	2833365.6	31183328.8	22 .. 66	951341.4	6975332.2
9 .. 53	2652572.4	28530756.4	23 .. 67	865585.2	6109747.0
10 .. 54	2484664.4	26046092.0	24 .. 68	785968.6	5323778.4
11 .. 55	2327002.8	23719089.2	25 .. 69	712099.6	4611678.8
12 .. 56	2176344.8	21542744.4	26 .. 70	643231.2	3968447.6
13 .. 57	2032841.3	19509903.1	27 .. 71	579442.1	3389005.5

TABLE XXX.   749

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty-Four Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
28 & 72	517804.7	2871200.8	44 & 88	23137.41	58169.44
29.. 73	457732.0	2413468.8	45.. 89	17018.22	41151.22
30.. 74	399835.4	2013633.4	46.. 90	12671.00	28480.22
31.. 75	344600.8	1669032.6	47.. 91	8774.66	19705.558
32.. 76	295217.8	1373814.8	48.. 92	5910.131	13795.427
33.. 77	250848.2	1122966.6	49.. 93	4015.308	9780.119
34.. 78	212104.2	910862.4	50.. 94	2807.277	6972.842
35.. 79	179046.4	731815.99	51.. 95	1987.758	4985.084
36.. 80	149499.12	582316.87	52.. 96	1437.480	3547.604
37.. 81	124321.98	457994.89	53.. 97	1060.176	2487.428
38.. 82	101930.50	356064.39	54.. 98	776.329	1711.099
39.. 83	82882.13	273182.26	55.. 99	573.844	1137.2545
40.. 84	66546.22	206636.04	56..100	441.2387	696.0158
41.. 85	52872.07	153763.97	57..101	322.1674	373.8484
42.. 86	41152.09	112611.88	58..102	215.6083	158.2401
43.. 87	31305.03	81306.85	59..103	120.7977	37.4424

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 45	6521576.	57916321.3	30 & 75	348117.7	1687305.1
1.. 46	5202098.6	52714222.7	31.. 76	298261.9	1389043.2
2.. 47	4509013.2	48205209.5	32.. 77	253415.4	1135627.8
3.. 48	3975812.4	44229397.1	33.. 78	214257.7	921370.1
4.. 49	3609240.0	40620157.1	34.. 79	180882.9	740487.16
5.. 50	3308713.7	37311443.4	35.. 80	151048.48	589438.68
6.. 51	3068139.3	34243304.1	36.. 81	125647.83	463790.85
7.. 52	2858508.7	31384795.4	37.. 82	103049.10	360741.75
8.. 53	2670139.1	28714656.3	38.. 83	83818.11	276923.64
9.. 54	2497357.1	26217299.2	39.. 84	67346.09	209577.55
10.. 55	2337496.3	23879802.9	40.. 85	53568.73	156008.82
11.. 56	2186886.6	21692916.3	41.. 86	41726.90	114281.92
12.. 57	2043056.6	19649859.7	42.. 87	31761·53	82520.39
13.. 58	1904651.7	17745208.0	43.. 88	23479.79	59040.60
14.. 59	1769297.6	15975910.4	44.. 89	17273.84	41766.76
15.. 60	1636147.0	14339763.4	45.. 90	12861.47	28905.29
16.. 61	1503889.9	12835873.5	46.. 91	8906.63	19998.662
17.. 62	1378320.8	11457552.7	47.. 92	5997.718	14000.944
18.. 63	1260848.9	10196703.8	48.. 93	4072.053	9928.891
19.. 64	1152324.5	9044379.3	49.. 94	2846.223	7082.668
20.. 65	1051423.4	7992955.9	50.. 95	2014.792	5067.876
21.. 66	957995.3	7034960.6	51.. 96	1458.322	3609.554
22.. 67	871682.0	6163278.6	52.. 97	1076.539	2533.015
23.. 68	791543.8	5371734.8	53.. 98	789.072	1743.943
24.. 69	717187.0	4654547.8	54.. 99	583.708	1160.2349
25.. 70	647970.7	4006577.1	55..100	449.2913	710.9436
26.. 71	583743.0	3422834.1	56..101	328.4072	382.5364
27.. 72	521858.6	2900975.5	57..102	220.2102	162.3262
28.. 73	461748.7	2439226.8	58..103	123.7944	38.5318
29.. 74	403804.0	2035422.8			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	6148326.	53924949.0	29 & 75	351572.9	1705491.1
1.. 47	4904327.2	49020521.8	30.. 76	301306.0	1404186.3
2.. 48	4251834.5	44768687.3	31.. 77	256028.5	1148157.7
3.. 49	3751587.7	41017099.6	32.. 78	216450.3	931707.4
4.. 50	3406558.6	37610541.0	33.. 79	182719.5	748987.88
5.. 51	3123748.0	34486793.0	34.. 80	152597.84	596390.04
6.. 52	2894055.9	31592737.1	35.. 81	126950.00	469440.04
7.. 53	2693833.7	28898903.4	36.. 82	104148.09	365291.95
8.. 54	2513995.8	26385007.6	37.. 83	84737.95	280554.00
9.. 55	2349437.0	24035570.6	38.. 84	68106.62	212447.38
10.. 56	2196748.0	21838822.6	39.. 85	54212.60	158234.78
11.. 57	2052952.6	19785870.0	40.. 86	42276.70	115958.08
12.. 58	1914282.8	17871647.2	41.. 87	32205.17	83752.91
13.. 59	1778511.0	16093133.2	42.. 88	23822.17	59930.74
14.. 60	1645236.6	14447896.6	43.. 89	17529.45	42401.29
15.. 61	1513257.7	12934638.9	44.. 90	13054.64	29346.65
16.. 62	1387629.2	11547009.7	45.. 91	9050.49	20296.163
17.. 63	1269627.5	10277382.2	46.. 92	6087.918	14208.245
18.. 64	1160403.6	9116978.6	47.. 93	4132.399	10075.846
19.. 65	1058847.2	8058131.4	48.. 94	2666.444	7189.402
20.. 66	964807.5	7093323.9	49.. 95	2042.744	5146.658
21.. 67	877778.7	6215545.2	50.. 96	1478.156	3668.502
22.. 68	797119.1	5418426.1	51.. 97	1092.149	2576.353
23.. 69	722274.2	4696151.9	52.. 98	801.252	1775.101
24.. 70	652599.7	4043552.2	53.. 99	593.288	1181.8130
25.. 71	588044.1	3455508.1	54..100	457.0130	724.8000
26.. 72	525732.1	2929776.0	55..101	334.4006	500.0004
27.. 73	465363.6	2464412.4	56..102	224.4752	165.9242
28.. 74	407347.3	2057065.1	57..103	126.4365	39.4877

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 47	5796392.	50156870.9	16 & 63	1278202.0	10357075.6
1.. 48	4624601.1	45532269.8	17.. 64	1168482.8	9188592.8
2.. 49	4012043.0	41520226.8	18.. 65	1066271.0	8122321.8
3.. 50	3540912.8	37979314.0	19.. 66	971619.8	7150702.0
4.. 51	3216123.2	34763190.8	20.. 67	884020.5	6266681.5
5.. 52	2946509.5	31816681.3	21.. 68	802694.3	5463987.3
6.. 53	2727333.0	29089348.3	22.. 69	727361.5	4736625.7
7.. 54	2536203.9	26553144.4	23.. 70	657228.8	4079396.9
8.. 55	2364996.2	24188148.2	24.. 71	592245.2	3487151.7
9.. 56	2207969.8	21980178.4	25.. 72	529605.7	2957546.0
10.. 57	2062210.2	19917968.2	26.. 73	468817.9	2488728.1
11.. 58	1923494.8	17994473.4	27.. 74	410546.5	2078191.6
12.. 59	1787451.4	16207022.0	28.. 75	354657.9	1723533.7
13.. 60	1653806.8	14553215.2	29.. 76	304296.6	1419237.1
14.. 61	1521664.7	13031550.5	30.. 77	258641.5	1160595.6
15.. 62	1396272.9	11635277.6	31.. 78	218682.2	941913.4

TABLE XXX. 751

tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty-Seven Years—continued.

D.	N.	Ages.	D.	N.
184589.4	757324.02	45 & 92	6179.426	14418.806
154147.20	603176.82	46..93	4194.546	10224.260
128252.17	474924.65	47..94	2929.221	7295.039
105227.45	369697.20	48..95	2071.611	5223.428
85641.64	284055.56	49..96	1498.664	3724.764
66854.03	215201.53	50..97	1107.002	2617.762
54824.82	160376.71	51..98	812.869	1804.897
42784.86	117591.85	52..99	602.444	1202.4493
32629.52	84962.33	53..100	464.5140	737.935
24154.93	60807.41	54..101	340.1477	397.7876
17785.07	43022.34	55..102	228.5718	169.2156
13247.83	29774.52	56..103	128.8853	40.3305
9176.29	20598.232			

Difference of Age Forty-Eight Years.

D.	N.	Ages.	D.	N.
5465786.	46596911.6	28 & 76	300000.00	1434199.8
4363786.7	42235124.9	29..77	261208.6	1172991.2
3786741.8	38448383.1	30..78	220914.0	952077.2
3342966.6	35105416.5	31..79	186492.8	765584.36
3033643.3	32071773.2	32..80	155724.73	803839.63
2776764.8	29295008.4	33..81	129554.34	480305.29
2567742.9	26727265.5	34..82	106306.80	373998.49
2385983.1	24341282.4	35..83	86539.19	287469.30
2223592.1	22118690.3	36..84	69588.33	217880.97
2072744.7	20045945.6	37..85	55426.48	162454.49
1932168.6	18113777.0	38..86	43268.02	119186.47
1796109.4	16317667.6	39..87	33021.71	86164.76
1662117.5	14655550.1	40..88	24473.19	61691.57
1529591.1	13125959.0	41..89	18033.49	43340.10
1404030.0	11741929.0	42..90	13441.01	30217.07
1286163.9	10435765.1	43..91	9312.08	20904.993
1176374.2	9259390.9	44..92	6272.248	14632.751
1073694.9	8185696.0	45..93	4257.595	10375.156
978432.0	7207264.0	46..94	2973.274	7401.882
890262.4	6317001.6	47..95	2102.312	5299.570
808402.2	5508599.4	48..96	1519.842	3779.728
732443.7	4776150.7	49..97	1122.360	2657.368
661858.1	4114292.6	50..98	823.924	1833.444
596446.2	3517846.4	51..99	611.180	1222.2641
533369.4	2984457.0	52..100	471.6840	750.5801
472272.1	2512184.9	53..101	345.7307	404.8494
413563.7	2098601.2	54..102	232.5001	173.3493
357434.6	1741166.6	55..103	131.2375	41.1118

TABLE XXX.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Forty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 49	5157531.	43235941.3	28 & 77	263500.7	1185211.1
1.. 50	4118732.9	39117208.4	29.. 78	223106.7	962104.4
2.. 51	3575053.1	35512155.3	30.. 79	188396.0	773708.37
3.. 52	3153289.8	32388865.5	31.. 80	157330.43	616377.94
4.. 53	2858879.0	29529986.5	32.. 81	130880.19	485497.75
5.. 54	2614282.2	26915704.3	33.. 82	107386.15	378111.60
6.. 55	2415654.0	24500050.3	34.. 83	87416.76	290694.84
7.. 56	2242315.2	22257735.1	35.. 84	70209.52	220485.32
8.. 57	2086471.5	20171263.6	36.. 85	56017.58	164467.74
9.. 58	1942038.8	18229224.8	37.. 86	43742.86	120724.88
10.. 59	1804208.7	16425016.1	38.. 87	33394.63	87330.25
11.. 60	1670168.4	14754847.7	39.. 88	24767.35	62562.90
12.. 61	1537277.6	13217570.1	40.. 89	18271.10	44291.80
13.. 62	1411343.7	11806226.4	41.. 90	13628.74	30663.06
14.. 63	1293309.3	10512917.1	42.. 91	9447.87	21215.192
15.. 64	1183701.9	9329215.2	43.. 92	6365.059	14550.133
16.. 65	1080946.0	8248269.2	44.. 93	4321.544	10528.589
17.. 66	985244.3	7263024.9	45.. 94	3017.965	7510.624
18.. 67	896504.1	6366520.8	46.. 95	2133.928	5376.696
19.. 68	814110.2	5552410.6	47.. 96	1542.366	3834.330
20.. 69	737657.2	4814753.4	48.. 97	1138.222	2696.108
21.. 70	666487.2	4148266.2	49.. 98	835.354	1860.754
22.. 71	600647.2	3547619.0	50.. 99	619.492	1241.2618
23.. 72	537172.8	3010446.2	51..100	478.5233	762.7385
24.. 73	475646.0	2534800.4	52..101	351.0673	411.6712
25.. 74	416630.9	2118169.3	53..102	236.3163	175.3549
26.. 75	360087.5	1758081.8	54..103	133.4929	41.8620
27.. 76	309370.0	1448711.8			

Difference of Age Fifty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 50	4867903·	40056021.5	17 & 67	902746.1	6415647.5
1.. 51	3888485.1	36167536.4	18.. 68	819818.1	5595829.4
2.. 52	3372208.0	32795328.4	19.. 69	742865.7	4852963.7
3.. 53	2971632.8	29823695.6	20.. 70	671226.6	4181737.1
4.. 54	2691591.7	27132103.9	21.. 71	604848.3	3576888.8
5.. 55	2459436.9	24672667.0	22.. 72	540956.4	3035932.4
6.. 56	2270199.7	22402467.3	23.. 73	479020.0	2556912.4
7.. 57	2104986.8	20297480.5	24.. 74	419607.6	2137304.8
8.. 58	1954900.0	18342580.5	25.. 75	362740.9	1774563.9
9.. 59	1813425.3	16529155.2	26.. 76	311666.3	1462897.6
10.. 60	1677699.8	14851455.4	27.. 77	265563.6	1197334.0
11.. 61	1544723.9	13306731.5	28.. 78	225064.5	972269.5
12.. 62	1418435.9	11888295.6	29.. 79	190266.0	782003.51
13.. 63	1300046.3	10588249.3	30.. 80	158936.14	623067.37
14.. 64	1190278.1	9397971.2	31.. 81	132229.72	490837.65
15.. 65	1087679.4	8310291.8	32.. 82	108485.14	382352.51
16.. 66	991898.2	7318393.6	33.. 83	88304.32	294048.19

TABLE XXX. 753.

e for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Fifty Years—*continued.*

	N.	Ages.	D.	N.
71	223017.48	44 & 94	3063.297	7621.323
12	166419.36	45.. 95	2166.004	5455.319
35	122210.01	46.. 96	1565.562	3889.757
10	88448.91	47.. 97	1155.090	2734.667
05	63401.86	48.. 98	847.161	1887.506
72	44911.14	49.. 99	628.087	1259.4187
32	31107.82	50..100	485.0316	774.3871
83	21527.989	51..101	356.1576	418.2295
874	15070.115	52..102	239.9640	178.2655
495	10684.620	53..103	135.6840	42.5815

Difference of Age Fifty-One Years.

	N.	Ages.	D.	N.
5.	37047057.7	27 & 78	226826.5	982101.4
6.0	33379201.7	28.. 79	191935.5	790165.88
9.4	30201262.3	29.. 80	160513.65	629652.23
7.5	27403514.8	30.. 81	133579.24	496072.99
7.0	24871347.8	31.. 82	109603.74	386469.25
6.2	22560001.6	32.. 83	89208.03	297261.22
3.4	20428838.2	33.. 84	71751.90	225509.32
7.7	18456590.5	34.. 85	57178.67	168330.65
4.7	16631155.8	35.. 86	44667.52	123663.13
0.1	14944885.7	36.. 87	34121.15	89541.98
9.5	13393196.2	37.. 88	25321.92	64220.06
6.4	11967889.8	38.. 89	18699.53	45520.53
9.2	10661310.6	39.. 90	13974.29	31546.24
8.3	9464832.3	40.. 91	9706.06	21840.180
2.0	8371110.3	41.. 92	6548.075	15292.105
6.7	7373033.6	42.. 93	4449.444	10842.661
2.8	6464190.8	43.. 94	3108.626	7734.035
6.0	5638664.8	44.. 95	2198.537	5535.498
4.0	4890590.8	45.. 96	1589.094	3946.404
6.0	4214624.8	46.. 97	1172.461	2773.943
9.3	3605475.5	47.. 98	859.715	1914.228
0.0	3060735.5	48.. 99	636.964	1277.2642
4.0	2578341.5	49..100	491.7605	785.5037
3.8	2155757.7	50..101	361.0015	424.5022
2.3	1790425.4	51..102	243.4433	181.0589
2.7	1476462.7	52..103	137.7784	43.2805
4.8	1208927.9			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint (Carlisle 4½ per Cent.)

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	N
0 & 52	4335015.	34202385.9	26 & 78	228510.2	991561
1.. 53	3456555.5	30745830.4	27.. 79	193438.2	79812:
2.. 54	2991982.2	27753848.2	28.. 80	161922.16	63620(
3.. 55	2632035.3	25121812.9	29.. 81	134905.08	50129:
4.. 56	2379696.9	22742116.0	30.. 82	110722.35	39057:
5.. 57	2169789.8	20572326.2	31.. 83	90127.86	30044
6.. 58	1996773.6	18575552.6	32.. 84	72486.21	22795'
7.. 59	1841633.4	16733919.2	33.. 85	57759.22	17020
8.. 60	1697437.5	15036481.7	34.. 86	45125.69	12507
9.. 61	1559616.1	13476865.6	35.. 87	34474.77	9059'
10.. 62	1431733.7	12045131.9	36.. 88	25591.96	6500
11.. 63	1312908.0	10732223.9	37.. 89	18904.74	4610
12.. 64	1202490.9	9529733.0	38.. 90	14132.10	3197
13.. 65	1099419.3	8430313.7	39.. 91	9822.72	2214
14.. 66	1003621.5	7426692.2	40.. 92	6634.354	1551
15.. 67	914504.0	6512188.2	41.. 93	4511.592	1100
16.. 68	831101.1	5681087.1	42.. 94	3153.956	784
17.. 69	753282.5	4927804.6	43.. 95	2231.071	561
18.. 70	680705.3	4247099.3	44.. 96	1612.962	400
19.. 71	613450.4	3633648.9	45.. 97	1190.084	281
20.. 72	548613.6	3085035.3	46.. 98	872.644	194
21.. 73	485767.9	2599267.4	47.. 99	646.402	129
22.. 74	425560.4	2173707.0	48..100	498.7100	79
23.. 75	367923.8	1805783.2	49..101	366.0098	43
24.. 76	316205.7	1489577.5	50..102	246.7542	18
25.. 77	269506.0	1220071.5	51..103	139.7761	4

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	N
0 & 53	4085280.	31516404.6	19 & 72	552487.2	31099
1.. 54	3254294.9	28262109.7	20.. 73	489222.2	26207
2.. 55	2814765.3	25447344.4	21.. 74	428536.8	21923
3.. 56	2473551.9	22973792.5	22.. 75	370515.2	18217
4.. 57	2233954.7	20739837.8	23.. 76	318448.6	15033
5.. 58	2032964.3	18706873.5	24.. 77	271430.3	12318
6.. 59	1864535.2	16842338.3	25.. 78	230193.9	10016
7.. 60	1712500.4	15129837.9	26.. 79	195874.0	8057
8.. 61	1569944.7	13559893.2	27.. 80	163189.82	6425
9.. 62	1439047.5	12120845.7	28.. 81	136088.87	5064
10.. 63	1318824.4	10802021.3	29.. 82	111821.32	3946
11.. 64	1208315.5	9593705.8	30.. 83	91047.70	3036
12.. 65	1104944.1	8488761.7	31.. 84	73233.63	2303
13.. 66	1008849.5	7479912.2	32.. 85	58350.33	172(
14.. 67	919584.6	6560327.6	33.. 86	45583.86	1264
15.. 68	836278.2	5724049.4	34.. 87	34828.38	91(
16.. 69	758369.7	4965679.7	35.. 88	25857.19	65;
17.. 70	685444.7	4280235.0	36.. 89	19106.35	46(
18.. 71	617751.4	3662483.6	37.. 90	14287.19	32:

TABLE XXX. 755

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 4½ per Cent.)

Difference of Age Fifty-Three Years—continued.

Ages.	D.	N.	Ages.	D.	N.
38 & 91	9933.65	22447.145	45 & 98	885.761	1969.846
39.. 92	6714.097	15733.048	46.. 99	656.123	1313.7232
40.. 93	4571.038	11162.010	47..100	506.1007	807.6225
41.. 94	3198.010	7964.000	48..101	371.1822	436.4403
42.. 95	2263.604	5700.396	49..102	250.1775	186.2628
43.. 96	1636.830	4063.566	50..103	141.6771	44.5857
44.. 97	1207.959	2855.607			

Difference of Age Fifty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 54	3846230.	28979652.1	25 & 79	196309.9	813119.57
1.. 55	3061541.1	25918111.0	26.. 80	164401.14	648718.43
2.. 56	2645279.2	23272831.8	27.. 81	137154.29	511564.14
3.. 57	2322061.5	20950770.3	28.. 82	112802.55	398761.59
4.. 58	2093083.0	18857687.3	29.. 83	91951.40	306810.19
5.. 59	1898329.1	16959358.2	30.. 84	73981.03	232829.16
6.. 60	1733796.3	15225561.9	31.. 85	58951.99	173877.17
7.. 61	1583876.3	13641685.6	32.. 86	46050.37	127826.80
8.. 62	1448577.7	12193107.9	33.. 87	35182.01	92644.79
9.. 63	1325565.5	10867542.4	34.. 88	26122.41	66522.38
10.. 64	1213764.2	9653778.2	35.. 89	19304.36	47218.02
11.. 65	1110296.1	8543482.1	36.. 90	14439.56	32778.46
12.. 66	1013919.2	7529562.9	37.. 91	10042.66	22735.798
13.. 67	924374.7	6605188.2	38.. 92	6789.918	15945.880
14.. 68	840924.2	5764264.0	39.. 93	4625.982	11319.898
15.. 69	763093.7	5001170.3	40.. 94	3240.148	8079.750
16.. 70	690073.8	4311096.5	41.. 95	2295.223	5784.527
17.. 71	622052.4	3689044.1	42.. 96	1660.700	4123.827
18.. 72	556360.8	3132683.3	43.. 97	1225.834	2897.993
19.. 73	492676.5	2640006.8	44.. 98	899.064	1998.929
20.. 74	431584.1	2208422.7	45.. 99	665.986	1332.9429
21.. 75	373106.5	1835316.2	46..100	513.7121	819.2308
22.. 76	320691.6	1514624.6	47..101	376.6830	442.5478
23.. 77	273356.7	1241267.9	48..102	253.7131	188.8347
24.. 78	231838.4	1009429.5	49..103	143.6427	45.1920

Difference of Age Fifty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 55	3618415.	26587897.4	8 & 63	1334344.0	10932760.0
1.. 56	2877195.9	23710701.5	9.. 64	1219964.6	9712795.4
2.. 57	2483271.4	21227430.1	10.. 65	1115303.0	8597492.4
3.. 58	2175633.9	19051796.2	11.. 66	1018830.4	7578662.0
4.. 59	1954466.4	17097329.8	12.. 67	929019.9	6649642.1
5.. 60	1765220.7	15332109.1	13.. 68	845304.7	5804337.4
6.. 61	1603572.8	13728536.3	14.. 69	767333.1	5037004.3
7.. 62	1461432.3	12267104.0	15.. 70	694372.3	4342632.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Fifty-Five Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
16 & 71	626253.5	3716378.5	33 & 88	26387.64	67257.29
17.. 72	560234.5	3156144.0	34.. 89	19502.38	47754.91
18.. 73	496130.7	2660013.3	35.. 90	14589.21	33165.70
19.. 74	434631.5	2225381.8	36.. 91	10149.77	23015.927
20.. 75	375759.8	1849622.0	37.. 92	6864.432	16151.495
21.. 76	322934.6	1526687.4	38.. 93	4678.223	11473.272
22.. 77	275282.2	1251405.2	39.. 94	3279.094	8194.178
23.. 78	233482.9	1017922.3	40.. 95	2325.465	5868.713
24.. 79	197712.3	820209.95	41.. 96	1683.896	4184.817
25.. 80	165612.46	654597.49	42.. 97	1243.711	2941.106
26.. 81	138172.36	516425.13	43.. 98	912.369	2028.737
27.. 82	113685.67	402739.46	44.. 99	675.990	1352.7466
28.. 83	92758.28	309981.18	45..100	521.4339	831.3127
29.. 84	74715.34	235265.84	46..101	382.3481	448.9646
30.. 85	59553.65	175712.19	47..102	257.4729	191.4917
31.. 86	46525.19	129187.00	48..103	145.6726	45.8191
32.. 87	35542.07	93644.93			

Difference of Age Fifty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 56	3400539.	24333757.5	24 & 80	166795.60	660269.16
1.. 57	2700984.6	21632772.9	25.. 81	139190.42	521078.74
2.. 58	2326677.9	19306095.0	26.. 82	114529.53	406549.21
3.. 59	2031550.1	17274544.9	27.. 83	93484.46	313064.75
4.. 60	1817421.5	15457123.4	28.. 84	75370.97	237693.78
5.. 61	1632636.7	13824486.7	29.. 85	60144.75	177549.03
6.. 62	1479606.0	12344880.7	30.. 86	47000.03	130549.00
7.. 63	1346184.9	10998695.8	31.. 87	35908.54	94640.46
8.. 64	1228043.8	9770652.0	32.. 88	26657.70	67982.76
9.. 65	1121000.2	8649651.8	33.. 89	19700.38	48282.38
10.. 66	1023424.6	7626227.2	34.. 90	14738.85	33543.53
11.. 67	933519.9	6692707.3	35.. 91	10254.95	23288.575
12.. 68	849552.4	5843154.9	36.. 92	6937.639	16350.936
13.. 69	771330.2	5071824.7	37.. 93	4729.562	11621.374
14.. 70	698229.9	4373594.8	38.. 94	3316.124	8305.250
15.. 71	630154.5	3743440.3	39.. 95	2353.416	5951.834
16.. 72	564018.0	3179422.3	40.. 96	1706.083	4245.751
17.. 73	499585.0	2679837.3	41.. 97	1261.082	2984.669
18.. 74	437678.8	2242158.5	42.. 98	925.674	2058.995
19.. 75	378412.9	1863745.6	43.. 99	685.991	1373.0041
20.. 76	325231.0	1538514.6	44..100	529.2656	843.7385
21.. 77	277207.6	1261307.0	45..101	388.0952	455.6433
22.. 78	235127.4	1026179.6	46..102	261.3452	194.2981
23.. 79	199114.8	827064.76	47..103	147.8315	46.4666

TABLE XXX. 787

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 4½ per Cent.)

Difference of Age Fifty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 57	3192276.	22210768.7	24 & 81	140184.81	525564.51
1.. 58	2530662.3	19680106.4	25.. 82	115373.39	410191.12
2.. 59	2172591.2	17507515.2	26.. 83	94178.36	316012.76
3.. 60	1889100.5	15618414.7	27.. 84	75961.04	240051.72
4.. 61	1680916.9	13937497.8	28.. 85	60672.52	179379.20
5.. 62	1506423.2	12431074.6	29.. 86	47466.53	131912.67
6.. 63	1362925.4	11068149.2	30.. 87	36275.03	95637.64
7.. 64	1238941.3	9829207.9	31.. 88	26932.56	68705.08
8.. 65	1128424.1	8700783.8	32.. 89	19902.00	48803.08
9.. 66	1028652.7	7672131.1	33.. 90	14888.50	33914.58
10.. 67	937729.4	6734401.7	34.. 91	10360.14	23554.440
11.. 68	853667.4	5880734.3	35.. 92	7069.539	16544.901
12.. 69	775206.3	5105528.0	36.. 93	4780.000	11764.901
13.. 70	701967.0	4403661.0	37.. 94	3352.515	8412.386
14.. 71	633655.3	3770005.7	38.. 95	2379.993	6032.393
15.. 72	567531.3	3202474.4	39.. 96	1726.589	4305.804
16.. 73	502958.9	2699515.5	40.. 97	1277.699	3028.105
17.. 74	440726.0	2258789.5	41.. 98	938.604	2089.501
18.. 75	381066.1	1877723.4	42.. 99	695.995	1393.5055
19.. 76	327527.3	1550196.1	43..100	537.0976	856.4079
20.. 77	279178.8	1271017.3	44..101	393.9244	462.4835
21.. 78	236771.9	1034245.4	45..102	265.2736	197.2099
22.. 79	200517.3	833728.07	46..103	150.0547	47.1552
23.. 80	167978.75	665749.92			

Difference of Age Fifty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 58	2990973.	20214512.5	23 & 81	141179.19	529896.55
1.. 59	2363066.6	17851445.9	24.. 82	116197.62	413698.93
2.. 60	2020251.9	15431194.0	25.. 63	94872.27	318826.66
3.. 61	1747212.0	14083982.0	26.. 84	76524.87	242301.79
4.. 62	1550970.9	12533011.1	27.. 85	61147.52	181154.27
5.. 63	1387628.0	11145383.1	28.. 86	47883.05	133271.32
6.. 64	1254348.2	9891034.9	29.. 87	36635.07	96636.15
7.. 65	1138437.7	8752597.2	30.. 88	27207.43	69428.72
8.. 66	1035464.9	7717132.3	31.. 89	20107.22	49321.50
9.. 67	942519.7	6774612.6	32.. 90	15040.87	34280.63
10.. 68	857516.9	5917095.7	33.. 91	10465.33	23815.304
11.. 69	778961.2	5138134.5	34.. 92	7081.438	16733.866
12.. 70	705394.1	4432740.4	35.. 93	4829.538	11904.328
13.. 71	636956.1	3795784.3	36.. 94	3388.269	8516.059
14.. 72	570684.2	3225100.1	37.. 95	2406.112	6109.947
15.. 73	506091.9	2719008.2	38.. 96	1746.086	4363.861
16.. 74	443702.5	2275305.7	39.. 97	1293.056	3070.805
17.. 75	383719.2	1891586.5	40.. 98	950.972	2119.833
18.. 76	329823.7	1561762.8	41.. 99	705.717	1414.1156
19.. 77	281150.0	1260612.8	42..100	544.9297	869.1859
20.. 78	238455.6	1042157.2	43..101	399.7536	469.4323
21.. 79	201919.6	840237.64	44..102	269.2579	200.1744
22.. 80	169161.90	671075.74	45..103	152.3101	47.8643

Preparatory Table for finding the Values of Annuities, &c. on Two Je
(Carlisle 4½ per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	
0 & 59	2792893.	18343819.8	23 & 82	117021.86	417
1.. 60	2197371.3	16146448.5	24 . 83	95550.06	32.
2.. 61	1868512.8	14277935.7	25.. 84	77088.71	24
3.. 62	1612141.0	12665794.7	26.. 85	61601.39	18
4.. 63	1428662.7	11237132.0	27.. 86	48257.92	13
5.. 64	1277082.8	9960049.3	28.. 87	36956.54	9
6.. 65	1152594.7	8807454.5	29.. 88	27477.49	7
7.. 66	1044653.6	7762800.9	30.. 89	20312.43	4
8.. 67	948761.6	6814039.3	31.. 90	15195.95	3
9.. 68	861897.4	5952141.9	32.. 91	10572.43	2
10.. 69	782473.9	5169668.0	33.. 92	7153.337	1
11.. 70	708810.8	4460857.2	34.. 93	4879.077	1
12.. 71	640156.9	3520700.3	35.. 94	3423.384	
13.. 72	573656.9	3247043.4	36.. 95	2431.772	
14.. 73	508903.6	2738139.8	37.. 96	1765.250	
15.. 74	446466.4	2291673.4	38.. 97	1307.658	
16.. 75	386310.7	1905362.7	39.. 98	962.401	
17.. 76	332120.0	1573242.7	40.. 99	715.016	
18.. 77	283121.1	1290120.6	41..100	552.5411	
19.. 78	240139.3	1049981.3	42..101	405.5828	
20.. 79	203355.5	846625.84	43..102	273.2423	
21.. 80	170345.04	676280.80	44..103	154.5979	
22.. 81	142173.58	534107.22			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	
0 & 60	2597059.	16598678.7	22 & 82	117846.10	42
1.. 61	2032329.1	14566349.6	23.. 83	96227.84	32
2.. 62	1724064.5	12842285.1	24.. 84	77639.44	24
3.. 63	1485008.9	11357276.2	25.. 85		18
4.. 64	1314848.6	10042427.6	26.. 86	48616.13	13
5.. 65	1173485.2	8868942.4	27.. 87	37245.87	9
6.. 66	1057644.4	7811298.0	28.. 88	27718.60	7
7.. 67	957180.8	6854117.2	29.. 89	20514.04	8
8.. 68	867605.5	5986511.7	30.. 90	15351.04	3
9.. 69	786471.0	5200040.7	31.. 91	10681.44	2
10.. 70	712007.2	4488033.5	32.. 92	7226.544	1
11.. 71	643257.6	3844775.9	33.. 93	4928.616	1
12.. 72	576539.7	3268236.2	34.. 94	3458.499	
13.. 73	511554.5	2756681.7	35.. 95	2456.974	
14.. 74	448946.7	2307735.0	36.. 96	1784.075	
15.. 75	388717.0	1919018.0	37.. 97	1322.010	
16.. 76	334363.0	1584655.0	38.. 98	973.269	
17.. 77	285092.4	1299562.6	39.. 99	723.611	
18.. 78	241822.9	1057739.7	40..100	559.8216	
19.. 79	204791.5	852948.20	41..101	411.2480	
20.. 80	171556.37	681391.83	42..102	277.2269	
21.. 81	143167.96	539223.87	43..103	156.8857	

TABLE XXXI. 759

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference 0.

Common Ages.	D.	N.	Common Ages.	D.	N.
0	100000000.	770350969.5	52	1446211.6	12655161.0
1	68179543.7	702171425.8	53	1335788.3	11319372.7
2	54886930.6	647284495.2	54	1231424.3	10087948.4
3	45706576.8	601577918.4	55	1133489.1	8954459.3
4	40289388.6	561288529.8	56	1041164.2	7913295.1
5	36198288.7	525090241.1	57	954262.6	6959032.5
6	33258056.3	491832184.8	58	871235.0	6087797.5
7	30901018.2	460931166.6	59	790063.8	5297733.7
8	28914100.9	432017065.7	60	710493.9	4587239.8
9	27176099.0	404840966.7	61	632098.5	3955141.3
10	25619582.0	379221384.7	62	559684.2	3395457.1
11	24181026.4	355040358.3	63	493899.1	2901558.0
12	22808060.7	332232297.6	64	435084.6	2466473.4
13	21505285.9	310727011.7	65	382062.0	2084411.4
14	20269500.6	290457511.1	66	334582.4	1749829.0
15	19091568.7	271365942.4	67	292139.3	1457689.7
16	17958026.9	253407915.5	68	254076.0	1203613.7
17	16874193.7	236533721.8	69	220019.5	983594.2
18	15849194.2	220084527.6	70	189466.9	794127.3
19	14885014.1	205799513.5	71	162287.7	631839.6
20	13978114.6	191821398.9	72	136903.5	494936.1
21	13125161.2	178696237.7	73	113223.5	381712.6
22	12327114.8	166369122.9	74	91642.9	290069.7
23	11576459.1	154792663.8	75	72249.0	217820.7
24	10870435.5	143922228.3	76	56291.0	161529.7
25	10206443.4	133715784.9	77	43138.3	118391.4
26	9578748.6	124137036.3	78	32730.7	85660.7
27	8988681.3	115148355.0	79	24756.9	60903.778
28	8428167.2	106720187.8	80	18324.915	42578.863
29	7887787.7	98832400.1	81	13462.252	29116.611
30	7365244.9	91467155.2	82	9619.522	19497.089
31	6873502.1	84593653.1	83	6764.945	12732.144
32	6413255.0	78180398.1	84	4645.262	8086.882
33	5984740.2	72195657.9	85	3130.615	4956.267
34	5585750.2	66609907.7	86	2027.926	2928.341
35	5212285.1	61397622.6	87	1256.359	1671.982
36	4862766.2	56534856.4	88	735.052	936.930
37	4533984.0	52000872.4	89	426.097	510.833
38	4224842.3	47776030.1	90	249.770	261.063
39	3934299.1	43841731.0	91	130.062	131.00067
40	3658475.2	40183255.8	92	63.19857	67.80210
41	3394226.3	36789029.5	93	31.20202	36.60008
42	3144150.5	33644879.0	94	16.30518	20.29490
43	2908972.9	30735906.1	95	8.73492	11.55998
44	2690241.6	28045664.5	96	4.88971	6.67027
45	2486868.0	25558796.5	97	2.85222	3.81805
46	2298818.6	23259977.9	98	1.64325	2.17480
47	2124954.9	21135023.0	99	.96615	1.2086547
48	1965091.0	19169932.0	100	.6159637	.5926910
49	1819719.5	17350212.5	101	.3548761	.2378149
50	1685962.7	15664249.8	102	.1724373	.0653776
51	1562877.2	14101372.6	103	.0591214	.0062562

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.

(Carlisle 5 per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	80580952.	717521479.3	52 & 53	1356407.3	11678036.0
1.. 2	59698974.2	657822505.1	53.. 54	1251635.9	10426400.1
2.. 3	48879772.0	608942733.1	54.. 55	1152969.6	9273430.5
3.. 4	41678395.7	567064337.4	55.. 56	1060165.5	8213265.0
4.. 5	37268739.8	529795597.6	56.. 57	972744.8	7240520.2
5.. 6	33360846.1	495934751.5	57.. 58	889829.8	6350690.4
6.. 7	31285289.3	464649452.2	58.. 59	809662.7	5541027.7
7.. 8	29170682.6	435478779.6	59.. 60	731167.0	4809860.7
8.. 9	27356073.2	408122706.4	60.. 61	654000.3	4155860.4
9..10	25750456.0	382372250.4	61.. 62	580456.0	3575404.4
10..11	24290068.4	358082182.0	62.. 63	513092.9	3062311.5
11..12	22918537.3	335163644.7	63.. 64	452388.1	2609923.4
12..13	21613352.7	313550292.0	64.. 65	397886.5	2212036.9
13..14	20375087.5	293175204.5	65.. 66	348918.5	1863118.4
14..15	19197632.9	273977571.6	66.. 67	305106.8	1558011.6
15..16	18069888.2	255907683.4	67.. 68	265877.9	1292133.7
16..17	16988153.5	238919529.9	68.. 69	230737.1	1061396.6
17..18	15959543.2	222959986.7	69.. 70	199252.0	862144.6
18..19	14989376.6	207970610.1	70.. 71	171125.6	691019.0
19..20	14076810.8	193893799.3	71.. 72	145464.0	545555.0
20..21	13218493.8	180675305.5	72.. 73	121501.4	424053.6
21..22	12413332.7	168261972.8	73.. 74	99408.4	324645.2
22..23	11657997.2	156603975.6	74.. 75	79409.2	245236.0
23..24	10947543.8	145656431.8	75.. 76	62235.8	183000.2
24..25	10279359.1	135377072.7	76.. 77	48090.1	134910.1
25..26	9649325.4	125727747.3	77.. 78	36670.3	98239.8
26..27	9055402.0	116672345.3	78.. 79	27780.0	70459.83
27..28	8494149.7	108178195.6	79.. 80	20786.18	49673.645
28..29	7957003.1	100221192.5	80.. 81	15327.990	34345.655
29..30	7438349.0	92782843.5	81.. 82	11105.571	23240.084
30..31	6943652.5	85839191.0	82.. 83	7872.528	15367.556
31..32	6479383.0	79359808.0	83.. 84	5470.696	9896.860
32..33	6045987.6	73313820.4	84.. 85	3721.562	6175.298
33..34	5642463.5	67671356.9	85.. 86	2458.930	3716.368
34..35	5265749.4	62405607.5	86.. 87	1557.718	2158.650
35..36	4913162.3	57492445.2	87.. 88	937.824	1220.826
36..37	4582337.3	52910107.9	88.. 89	546.159	674.667
37..38	4271206.6	48638901.3	89.. 90	318.368	356.299
38..39	3978728.5	44660172.8	90.. 91	175.894	180.4055
39..40	3702449.0	40957723.8	91.. 92	88.4780	91.9273
40..41	3438949.6	37518774.2	92.. 93	43.33614	48.5911
41..42	3188066.7	34330707.5	93.. 94	22.01200	26.5791
42..43	2951391.7	31379315.8	94.. 95	11.64656	14.9326
43..44	2730051.4	28649264.4	95.. 96	6.37788	8.5547
44..45	2524220.9	26125043.5	96.. 97	3.64450	4.9102
45..46	2333372.5	23791671.0	97.. 98	2.11275	2.7974
46..47	2156912.6	21634758.4	98.. 99	1.22964	1.5678
47..48	1994212.9	19640545.5	99..100	.752844	.8149
48..49	1845435.6	17795109.9	100..101	.4562693	.3582
49..50	1709352.2	16085757.7	101..102	.2414122	.1173
50..51	1584133.4	14501624.3	102..103	.0985356	.0182
51..52	1467181.0	13034443.3			

TABLE XXXI. 761

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Two Years.

Ages	D.	N.	Ages	D.	N.
0 & 2	70557823.	671916035.1	51 & 53	1376074.5	12023681.8
1.. 3	53165156.3	618750878.8	52.. 54	1270955.9	10752725.9
2.. 4	44785817.9	573965060.9	53.. 55	1171893.6	9580832.3
3.. 5	38738613.0	535226447.9	54.. 56	1078385.8	8502446.5
4.. 6	34862174.6	500364273.3	55.. 57	990497.3	7511949.2
5.. 7	31852323.4	468511949.9	56.. 58	907064.1	6604885.1
6.. 8	29533435.9	438978514.0	57.. 59	826943.3	5777941.8
7.. 9	27598829.1	411379684.9	58.. 60	749304.8	5028637.0
8..10	25920988.9	385458696.0	59.. 61	673029.7	4355607.3
9..11	24414150.8	361044545.2	60.. 62	600568.3	3755039.0
10..12	23021886.2	338022659.0	61.. 63	532135.5	3222903.5
11..13	21718042.4	316304616.6	62.. 64	469968.8	2752934.7
12..14	20477475.0	295827141.6	63.. 65	413710.6	2339224.1
13..15	19297636.3	276529505.3	64.. 66	363370.0	1975854.1
14..16	18170276.5	258359228.8	65.. 67	318179.9	1657674.2
15..17	17093973.4	241265255.4	66.. 68	277679.7	1379994.5
16..18	16067325.9	225197929.5	67.. 69	241455.0	1138539.5
17..19	15093739.3	210104190.2	68.. 70	208958:1	929581.4
18..20	14175506.7	195928683.5	69.. 71	179963.4	749618.0
19..21	13311826.3	182616857.2	70.. 72	153385.6	596232.4
20..22	12501603.5	170115253.7	71.. 73	129098.7	467133.7
21..23	11739535.2	158375718.5	72.. 74	106676.2	360457.5
22..24	11024652.2	147351066.3	73.. 75	86138.0	274319.5
23..25	10352274.5	136998791.8	74.. 76	68403.7	205915.8
24..26	9718260.9	127280530.9	75.. 77	53168.9	152746.9
25..27	9122122.8	118158408.1	76.. 78	40879.7	111867.2
26..28	8557199.7	109601208.4	77.. 79	31123.6	80743.62
27..29	8019297.0	101581911.4	78.. 80	23324.36	57419.26
28..30	7503620.6	94078290.8	79.. 81	17386.72	40032.538
29..31	7012572.0	87065718.8	80.. 82	12644.695	27387.842
30..32	6545311.0	80520207.8	81.. 83	▓▓▓▓	18299.144
31..33	6108328.7	74411879.1	82.. 84	6366.380	11932.764
32..34	5700208.0	68711671.1	83.. 85	4382.861	7549.904
33..35	5319213.7	63392457.4	84.. 86	2923.088	4626.816
34..36	4963558.4	58428899.0	85.. 87	1888.786	2738.030
35..37	4629827.1	53799071.9	86.. 88	1162.774	1575.256
36..38	4316757.5	49482314.4	87.. 89	696.824	878.432
37..39	4022391.9	45459922.5	88.. 90	408.074	470.358
38..40	3744260.1	41715662.4	89.. 91	224.203	246.1553
39..41	3480284.8	38235377.6	90.. 92	119.6560	126.4993
40..42	3230073.6	35005304.0	91.. 93	60.6706	65.82869
41..43	2992615.6	32012688.4	92.. 94	30.57222	35.25647
42..44	2769861.1	29242827.3	93.. 95	15.72287	19.53360
43..45	2561574.0	26681253.3	94.. 96	8.50384	11.02976
44..46	2368420.0	24312833.3	95.. 97	4.75370	6.27606
45..47	2189333.5	22123499.8	96.. 98	2.69964	3.57643
46..48	2024204.4	20099295.4	97.. 99	1.58097	1.995447
47..49	1872784.4	18226511.0	98..100	.958166	1.037281
48..50	1733508.7	16493002.3	99..101	.557663	.4796181
49..51	1606110.3	14886892.0	100..102	.3103871	.1692310
50..52	1487135.7	13399756.3	101..103	.1379498	.0312812

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 3	62835547.	631855613.2	51 & 54	1289384.2	11066956.5
1..4	48712277.3	583143335.9	52..55	1189982.6	9876973.9
2..5	41428054.7	541715281.2	53..56	1096085.6	8780888.3
3..6	36237133.2	505478148.0	54..57	1007520.3	7773368.0
4..7	32794256.1	472683891.9	55..58	923618.0	6849750.0
5..8	30068718.4	442615173.5	56..59	842959.6	6006790.4
6..9	27942035.5	414673138.0	57..60	765297.3	5241493.1
7..10	26151009.9	388522128.1	58..61	689725.2	4551767.9
8..11	24575834.0	363946294.1	59..62	618043.0	3933724.9
9..12	23139490.3	340806803.8	60..63	550573.5	3383151.4
10..13	21815977.9	318990825.9	61..64	487410.9	2895740.5
11..14	20576662.8	298414163.1	62..65	429788.2	2465952.3
12..15	19394609.5	279019553.6	63..66	377821.6	2088130.7
13..16	18264928.2	260754625.4	64..67	331358.3	1756772.4
14..17	17188939.9	243565685.5	65..68	289577.5	1467194.9
15..18	16167409.9	227398275.6	66..69	252172.7	1215022.2
16..19	15195674.8	212202600.8	67..70	218664.2	996358.0
17..20	14274202.9	197928397.9	68..71	188730.0	807628.0
18..21	13405158.8	184523239.1	69..72	161307.2	646320.8
19..22	12589874.2	171933364.9	70..73	136129.2	510191.6
20..23	11823014.6	160110350.3	71..74	113346.6	396845.0
21..24	11101760.5	149003589.8	72..75	92435.6	304409.4
22..25	10425190.3	138583399.5	73..76	74199.9	230209.5
23..26	9787196.4	128796203.1	74..77	58438.2	171771.8
24..27	9187291.9	119608911.2	75..78	45197.0	126574.3
25..28	8620249.7	110988661.5	76..79	34696.3	91878.03
26..29	8078822.2	102909839.3	77..80	26131.74	65746.29
27..30	7562365.1	95347474.2	78..81	19509.81	46236.48
28..31	7074107.4	88273366.8	79..82	14343.04	31893.444
29..32	6610478.8	81662888.0	80..83	10348.303	21545.131
30..33	6170669.7	75492218.3	81..84	7349.875	14195.266
31..34	5758983.7	69733234.6	82..85	5100.440	9094.826
32..35	5373650.2	64359584.4	83..86	3442.503	5652.323
33..36	5013954.5	59345629.9	84..87	2245.320	3407.003
34..37	4677316.9	54668313.0	85..88	1409.905	1997.098
35..38	4361495.0	50306818.0	86..89	863.967	1133.131
36..39	4065289.2	46241528.8	87..90	520.646	612.485
37..40	3785350.5	42456178.3	88..91	287.376	325.1094
38..41	3519587.1	38936591.2	89..92	152.5192	172.5902
39..42	3268898.2	35667693.0	90..93	82.0497	90.5405
40..43	3032047.1	32635615.9	91..94	42.8011	47.73937
41..44	2808549.6	29827096.3	92..95	21.83732	25.90205
42..45	2598927.0	27228169.3	93..96	11.48019	14.42186
43..46	2403467.5	24824701.8	94..97	6.33827	8.08359
44..47	2222217.4	22602484.4	95..98	3.52126	4.56233
45..48	2054630.6	20547853.8	96..99	2.02013	2.542199
46..49	1900949.6	18646904.2	97..100	1.231927	1.310172
47..50	1759198.7	16887705.5	98..101	.709752	.600520
48..51	1628807.7	15258897.8	99..102	.379362	.221157
49..52	1507766.9	13751130.9	100..103	.1773641	.043793
50..53	1394790.2	12356340.7			

TABLE XXXI. 763

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	57572719.	595401018.7	50 & 54	1306920.7	11369162.2
1.. 5	45060132.5	550343886.2	51.. 55	1207236.9	10161925.4
2.. 6	38752908.8	511590977.4	52.. 56	1113604.5	9048920.9
3.. 7	34087656.4	477503321.0	53.. 57	1024057.1	8024863.8
4.. 8	30957906.7	446545414.3	54.. 58	939491.6	7085372.2
5.. 9	28448474.5	418096939.8	55.. 59	858343.5	6227028.7
6..10	26476211.9	391620727.9	56.. 60	780119.6	5446909.1
7..11	24793918.2	366826809.7	57.. 61	704446.1	4742463.0
8..12	23292731.9	343534077.8	58.. 62	633374.5	4109088.5
9..13	21927421.6	321606656.2	59.. 63	566593.5	3542495.0
10..14	20669451.3	300937204.9	60.. 64	504299.4	3038195.6
11..15	19488552.1	281448652.8	61.. 65	445739.1	2592456.5
12..16	18356711.8	263091941.0	62.. 66	392504.4	2199952.1
13..17	17278479.7	245813461.3	63.. 67	344536.7	1855415.4
14..18	16257298.9	229556232.4	64.. 68	301571.3	1553844.1
15..19	15290339.2	214265903.2	65.. 69	262977.7	1290866.4
16..20	14370603.7	199895299.5	66.. 70	228370.3	1062496.1
17..21	13498691.4	186396708.1	67.. 71	197496.4	864999.7
18..22	12678145.0	173718563.1	68.. 72	169164.9	695834.8
19..23	11906494.0	161812069.1	69.. 73	143159.6	552675.2
20..24	11180704.7	150631364.4	70.. 74	119519.3	433155.9
21..25	10498105.9	140133258.5	71.. 75	98215.4	334940.5
22..26	9856131.9	130277126.6	72.. 76	79624.8	255315.7
23..27	9252461.0	121024665.6	73.. 77	63390.0	191925.7
24..28	8681833.5	112342832.1	74.. 78	49676.2	142249.5
25..29	8138347.5	104204484.6	75.. 79	38360.6	103888.85
26..30	7618498.6	96585986.0	76.. 80	29131.42	74757.43
27..31	7129469.2	89456496.8	77.. ■	21858.06	52899.37
28..32	6668485.8	82788011.0	78.. 82	16094.45	36804.92
29..33	6211917.0	76556094.0	79.. 83	11738.21	25066.712
30..34	5817759.2	70738334.8	80.. 84	8368.498	16698.214
31..35	5429058.6	65309276.2	81.. 85	5888.370	10809.844
32..36	5065266.9	60244009.3	82.. 86	4006.123	6803.721
33..37	4724806.7	55519202.6	83.. 87	2644.299	4159.422
34..38	4406232.4	51112970.2	84.. 88	1676.043	2483.379
35..39	4107420.5	47005549.7	85.. 89	1047.589	1435.790
36..40	3825719.8	43179829.9	86.. 90	645.530	790.260
37..41	3558211.7	39621618.2	87.. 91	366.652	423.6082
38..42	3305813.2	36315805.0	88.. 92	195.4942	228.1140
39..43	3068491.4	33247313.6	89.. 93	104.5845	123.5295
40..44	2845555.8	30401757.8	90.. 94	57.8834	65.6461
41..45	2635227.8	27766530.0	91.. 95	30.5723	35.07301
42..46	2438515.0	25328015.0	92.. 96	15.94471	19.12920
43..47	2255101.4	23072913.6	93.. 97	8.55666	10.57254
44..48	2085491.2	20987422.4	94.. 98	4.69501	5.87753
45..49	1929523.0	19057809.4	95.. 99	2.63495	3.242576
46..50	1785655.7	17272243.7	96..100	1.574129	1.668447
47..51	1652946.1	15619297.6	97..101	.912538	.755909
48..52	1529074.5	14090223.1	98..102	.482325	.274084
49..53	1414140.2	12676082.9	■.103	.216778	.0563061

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	53256273.	561872466.1	50 & 55	1223656.1	10435777.5
1.. 6	42150451.4	519722014.7	51.. 56	1129142.5	9306635.0
2.. 7	36454203.9	483267810.8	52.. 57	1039864.1	8266770.9
3.. 8	32178881.6	451088929.2	53.. 58	954911.8	7311859.1
4.. 9	29289749.0	421799180.2	54.. 59	873095.4	6438763.7
5..10	26956083.4	394843096.8	55.. 60	794356.7	5644407.0
6..11	25102244.0	369740852.8	56.. 61	718089.8	4926317.2
7..12	23499429.9	346241422.9	57.. 62	646892.7	4279424.5
8..13	22072636.5	324168786.4	58.. 63	580648.8	3698775.7
9..14	20775038.3	303393748.1	59.. 64	518972.8	3179802.9
10..15	19576433.9	283817314.2	60.. 65	461183.6	2718619.3
11..16	18445627.1	265371687.1	61.. 66	407071.5	2311547.8
12..17	17365306.3	248006380.8	62.. 67	357925.9	1953621.9
13..18	16341915.2	231664465.6	63.. 68	313565.0	1640056.9
14..19	15375275.5	216289190.1	64.. 69	273869.7	1366187.2
15..20	14460118.7	201829071.4	65.. 70	238155.4	1128031.8
16..21	13589653.4	188239418.0	66.. 71	206263.0	921768.8
17..22	12766415.8	175473002.2	67.. 72	177022.7	744746.1
18..23	11989973.5	163483028.7	68.. 73	150133.2	594612.9
19..24	11259648.9	152223379.8	69.. 74	125691.9	468921.0
20..25	10572757.5	141650622.3	70.. 75	103564.1	365356.9
21..26	9925067.3	131725555.0	71.. 76	84603.6	280753.3
22..27	9317630.1	122407924.9	72.. 77	68024.5	212728.8
23..28	8743417.1	113664507.8	73.. 78	53885.7	158843.1
24..29	8196488.5	105468019.3	74.. 79	42162.2	116680.87
25..30	7674632.2	97793387.1	75.. 80	32208.00	84472.87
26..31	7182409.7	90610977.4	76.. 81	24367.15	60105.72
27..32	6720692.1	83890285.3	77.. 82	18031.63	42074.09
28..33	6286602.2	77603683.1	78.. 83	13171.55	28902.54
29..34	5875503.7	71728179.4	79.. 84	9492.49	19410.049
30..35	5484467.0	66243712.4	80.. 85	6704.441	12705.608
31..36	5117495.7	61126216.7	81.. 86	4624.999	8080.609
32..37	4773160.0	56353056.7	82.. 87	3077.234	5003.375
33..38	4450969.9	51902086.8	83.. 88	1973.865	3029.510
34..39	4149551.8	47752535.0	84.. 89	1245.337	1784.173
35..40	3865368.3	43887166.7	85.. 90	782.729	1061.444
36..41	3596158.7	40291008.0	86.. 91	454.598	546.8459
37..42	3342092.0	36948916.0	87.. 92	249.4235	297.4224
38..43	3103143.4	33845772.6	88.. 93	134.0531	163.3693
39..44	2879758.6	30966014.0	89.. 94	73.7809	89.5884
40..45	2669950.4	28296063.6	90.. 95	41.3453	48.2431
41..46	2472575.3	25823488.3	91.. 96	22.3226	25.92052
42..47	2287985.5	23535502.8	92.. 97	11.88425	14.03627
43..48	2116352.0	21419150.8	93.. 98	6.33827	7.697996
44..49	1958504.6	19460646.2	94.. 99	3.51327	4.184726
45..50	1812496.2	17648150.0	95..100	2.053212	2.131514
46..51	1677805.1	15970344.9	96..101	1.166022	.965492
47..52	1551734.9	14418610.0	97..102	.620775	.344717
48..53	1434124.7	12984485.3	98..103	.275899	.068818
49..54	1325051.7	11659433.6			

TABLE XXXL. 765

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 6	49817340.	530591454.3	49 & 55	1240632.1	10698630.2
1.. 7	39650214.6	490941239.7	50.. 56	1144499.7	9554130.5
2.. 8	34412911.7	456528328.0	51.. 57	1054941.7	8499188.8
3.. 9	30444932.1	426083395.9	52.. 58	969651.5	7529537.3
4..10	27753225.2	398330170.7	53.. 59	887425.7	6642111.6
5..11	25557212.9	372772957.8	54.. 60	808008.9	5834102.7
6..12	23791658.2	348981299.6	55.. 61	731194.9	5102907.8
7..13	22268507.4	326712792.2	56.. 62	659421.7	4443486.1
8..14	20912621.3	305800170.9	57.. 63	593041.6	3850444.5
9..15	19676437.3	286123733.6	58.. 64	531846.8	3318597.7
10..16	18528806.0	267594927.6	59.. 65	474602.6	2843995.1
11..17	17449419.5	250145508.1	60.. 66	421176.2	2422818.9
12..18	16424035.4	233721472.7	61.. 67	371209.8	2051609.1
13..19	15455367.6	218266105.1	62.. 68	325750.7	1725858.4
14..20	14540452.7	203725652.4	63.. 69	284761.8	1441096.6
15..21	13674303.9	190051348.5	64.. 70	248019.3	1193077.3
16..22	12852633.8	177198714.7	65.. 71	215100.8	977976.5
17..23	12073452.8	165125261.9	66.. 72	184880.4	793096.1
18..24	11338593.1	153786668.8	67.. 73	157107.0	635989.1
19..25	10647409.2	143139259.6	68.. 74	131814.5	504174.6
20..26	9995644.1	133143615.5	69.. 75	108912.8	395261.8
21..27	9382799.2	123760816.3	70.. 76	89211.0	306050.8
22..28	8805000.8	114955815.5	71.. 77	72277.9	233772.9
23..29	8254629.4	106701186.1	72.. 78	57825.2	175947.7
24..30	7729460.3	98971725.8	73.. 79	45734.9	130212.83
25..31	7235330.1	91736395.7	74.. 80	35399.96	94812.87
26..32	6770578.1	84965817.6	75.. 81	26940.58	67872.29
27..33	6335818.8	78629998.8	76.. 82	20101.48	47770.81
28..34	5927061.3	72702937.5	77.. 83	14756.91	33013.90
29..35	5538903.4	67164034.1	78.. 84	10651.60	22362.30
30..36	5169724.4	61994309.7	79.. 85	7604.93	14757.373
31..37	4822376.8	57171932.9	80.. 86	5265.979	9491.394
32..38	4496520.7	52675412.2	81.. 87	3552.615	5938.779
33..39	4191683.1	48483729.1	82.. 88	2297.035	3641.744
34..40	3905016.8	44578712.3	83.. 89	1466.625	2175.119
35..41	3633428.1	40945284.2	84.. 90	930.460	1244.639
36..42	3377734.1	37567550.1	85.. 91	551.217	693.4223
37..43	3137197.9	34430352.2	86.. 92	309.2516	384.1707
38..44	2912279.2	31518073.0	87.. 93	171.0333	213.1374
39..45	2702042.3	28816030.7	88.. 94	94.5700	118.5674
40..46	2505154.6	26310876.1	89.. 95	52.7007	65.8667
41..47	2319943.3	23990932.8	90.. 96	30.1886	35.6781
42..48	2147212.8	21843720.0	91.. 97	16.6380	19.04010
43..49	1987486.3	19856233.7	92.. 98	8.80315	10.23695
44..50	1839720.0	18016513.7	93.. 99	4.74291	5.494041
45..51	1703024.4	16313489.3	94..100	2.737616	2.756425
46..52	1575071.8	14738417.5	95..101	1.520898	1.235527
47..53	1455378.0	13283039.5	96..102	.793211	.442316
48..54	1343777.2	11939262.3	97..103	.354729	.087587

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 5 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	
0 & 3	62835547.	631855613.2	51 & 54	1289384.2	110669
1.. 4	48712277.3	583143335.9	52.. 55	1189982.6	98769
2.. 5	41428054.7	541715281.2	53.. 56	1096085.6	87808
3.. 6	36237133.2	505478148.0	54.. 57	1007529.3	77733
4.. 7	33794256.1	472683891.9	55.. 58	923618.0	68492
5.. 8	30068718.4	442615173.5	56.. 59	842959.6	60062
6.. 9	27942035.5	414673138.0	57.. 60	765297.3	52414
7..10	26151009.9	388522128.1	58.. 61	689725.2	45512
8..11	24575834.0	363946294.1	59.. 62	618043.0	39337
9..12	23139490.3	340806803.8	60.. 63	550573.5	33831
10..13	21815977.9	318990825.9	61.. 64	487410.9	28952
11..14	20576662.8	298414163.1	62.. 65	429788.2	24659
12..15	19394609.5	279019553.6	63.. 66	377821.6	20881
13..16	18264928.2	260754625.4	64.. 67	331358.3	17562
14..17	17188939.9	243565685.5	65.. 68	289577.5	14671
15..18	16167409.9	227398275.6	66.. 69	252172.7	12150
16..19	15195674.8	212202600.8	67.. 70	218664.2	9963
17..20	14274202.9	197928397.9	68.. 71	188730.0	8076
18..21	13405158.8	184523239.1	69.. 72	161307.2	6465
19..22	12589874.2	171933364.9	70.. 73	136129.2	5101
20..23	11823014.6	160110350.3	71.. 74	113346.6	3965
21..24	11101760.5	149003589.8	72.. 75	92435.6	3044
22..25	10425190.3	138583399.5	73.. 76	74199.9	2302
23..26	9787196.4	128796203.1	74.. 77	58438.2	1717
24..27	9187291.9	119608911.2	75.. 78	45197.0	1265
25..28	8620249.7	110988661.5	76.. 79	34696.3	918
26..29	8078822.2	102909839.3	77.. 80	26131.74	657
27..30	7562365.1	95347474.2	78.. 81	19509.81	462
28..31	7074107.4	88273366.8	79.. 82	14343.04	318
29:.32	6610478.8	81662888.0	80.. 83	10348.303	215
30..33	6170669.7	75492218.3	81.. 84	7349.875	141
31..34	5758963.7	69733234.6	82.. 85	5100.440	90
32..35	5373650.2	64359584.4	83.. 86	3442.503	56
33..36	5013954.5	59345629.9	84.. 87	2245.320	34
34..37	4677316.9	54668313.0	85.. 88	1409.905	19
35..38	4361495.0	50306818.0	86.. 89	863.967	11
36..39	4065289.2	46241528.8	87.. 90	520.646	6
37..40	3785350.5	42456178.3	88.. 91	287.376	3
38..41	3519587.1	38936591.2	89.. 92	152.5192	1
39..42	3268898.2	35667693.0	90.. 93	82.0497	
40..43	3032047.1	32635645.9	91.. 94	42.8011	
41..44	2808549.6	29827096.3	92.. 95	21.83732	
42..45	2598957.0	27228169.3	93.. 96	11.48019	
43..46	2403467.5	24824701.8	94.. 97	6.33827	
44..47	2222217.4	22602484.4	95.. 98	3.52126	
45..48	2054630.6	20547853.8	96.. 99	2.02013	
46..49	1900949.6	18646904.2	97..100	1.231927	
47..50	1759198.7	16887705.5	98..101	.709752	
48..51	1628807.7	15258897.8	99..102	.379362	
49..52	1507766.9	13751130.9	100..103	.177364	
50..53	1394790.2	12356340.7			

TABLE XXXI. 763

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 4	57572719.	595404018.7	50 & 54	1306920.7	11369162.2
1.. 5	45060132.5	550343886.2	51.. 55	1207236.8	10161925.4
2.. 6	38752908.8	511590977.4	52.. 56	1113604.5	9048920.9
3.. 7	34087656.4	477503321.0	53.. 57	1024057.1	8024863.8
4.. 8	30957906.7	446545414.3	54.. 58	939491.6	7085372.2
5.. 9	28448474.5	418096939.8	55.. 59	858343.5	6227028.7
6..10	26476211.9	391620727.9	56.. 60	760119.6	5446909.1
7..11	24793918.2	366826809.7	57.. 61	704446.1	4742463.0
8..12	23292731.9	343534077.8	58.. 62	633374.5	4109088.5
9..13	21927421.6	321606656.2	59.. 63	566593.5	3542495.0
10..14	20669451.3	300937204.9	60.. 64	504299.4	3038195.6
11..15	19488552.1	281448652.8	61.. 65	445739.1	2592456.5
12..16	18356711.8	263091941.0	62.. 66	392504.4	2199952.1
13..17	17278479.7	245813461.3	63.. 67	344536.7	1855415.4
14..18	16257228.9	229556232.4	64.. 68	301571.3	1553844.1
15..19		214265903.2	65.. 69	262977.7	1290866.4
16..20	14370603.7	199895299.5	66.. 70	228370.3	1062496.1
17..21	13498591.4	186396708.1	67.. 71	197496.4	864999.7
18..22	12578145.0	173718563.1	68.. 72	169164.9	695834.8
19..23	11906494.0	161812069.1	69.. 73	143159.6	552675.2
20..24	11190704.7	150631364.4	70.. 74	119519.3	433155.9
21..25	10498105.9	140133258.5	71.. 75	98215.4	334940.5
22..26	9856131.9	130277126.6	72.. 76	79624.8	255315.7
23..27	9252461.0	121024665.6	73.. 77	63390.0	191925.7
24..28	8681633.5	112342832.1	74.. 78	49676.2	142249.5
25..29	8138347.5	104204484.6	75.. 79	38360.6	103888.85
26..30	7618498.6	96585986.0	76.. 80	29131.42	74757.43
27..31	7129489.2	89456496.8	77.. 81	21858.06	52899.37
28..32	6668485.8	82788011.0	78.. 82	16094.45	36804.92
29..33	6231917.0	76556094.0	79.. 83	11738.21	25066.712
30..34	5917759.2	70738334.8	80.. 84	8368.498	16698.214
31..35	5429058.6	65309276.2	81.. 85	5888.370	10809.844
32..36	5065266.9	60244009.3	82.. 86	4006.123	6803.721
33..37	4724806.7	55519202.6	83.. 87	2644.299	4159.422
34..38	4406232.4	51112970.2	84.. 88	1676.043	2483.379
35..39	4107420.5	47005549.7	85.. 89	1047.589	1435.790
36..40	3825719.8	43179829.9	86.. 90	645.530	790.260
37..41	3556211.7	39621618.2	87.. 91	366.652	423.6082
38..42	3305813.2	36315805.0	88.. 92	195.4942	228.1140
39..43	3068491.4	33247313.6	89.. 93	104.5845	123.5295
40..44	2845555.8	30401757.8	90.. 94	57.8834	65.6461
41..45	2635227.8	27766530.0	91.. 95	30.5722	35.07391
42..46	2438515.0	25328015.0	92.. 96	15.94471	19.12920
43..47	2255101.4	23072913.6	93.. 97	8.55666	10.57234
44..48	2085491.2	20987422.4	94.. 98	4.69501	5.87753
45..49	1929523.0	19057899.4	95.. 99	2.63495	3.242576
46..50	1785655.7	17272243.7	96..100	1.574129	1.668447
47..51	1652946.1	15619297.6	97..101	.912538	.755909
48..52	1529074.5	14090223.1	98..102	.482825	.273084
49..53	1414140.2	12676082.9	99..103	.216778	.0563061

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	46862327.	501205609.4	49 & 56	1160377.5	9791512.7
1.. 8	37429958.3	463775651.1	50.. 57	1069289.7	8722223.0
2.. 9	32558582.2	431217068.9	51.. 58	983711.0	7738512.0
3..10	28847808.1	404369260.8	52.. 59	901123.7	6837388.3
4..11	26312987.5	376056273.3	53.. 60	821270.9	6016117.4
5..12	24223873.1	351833400.2	54.. 61	743761.5	5272355.9
6..13	22545428.5	329287971.7	55.. 62	671456.2	4600899.7
7..14	21098198.4	308189773.3	56.. 63	604527.7	3996372.0
8..15	19806744.9	288383028.4	57.. 64	543198.0	3453174.0
9..16	18623457.7	269759570.7	58.. 65	486375.9	2966798.1
10..17	17523106.0	252231464.7	59.. 66	433431.2	2533366.9
11..18	16503589.4	235727875.3	60.. 67	384072.0	2149294.9
12..19	15533032.8	220194842.5	61.. 68	337840.5	1811454.4
13..20	14616196.1	205578646.4	62.. 69	295828.1	1515626.3
14..21	13750272.2	191828374.2	63.. 70	257883.3	1257743.0
15..22	12932693.3	178895680.9	64.. 71	224009.9	1033733.1
16..23	12154990.9	166740690.0	65.. 72	192802.0	840931.1
17..24	11417537.4	155323152.6	66.. 73	164080.6	676850.5
18..25	10722060.8	144601091.8	67.. 74	137937.4	538913.1
19..26	10066221.0	134534870.8	68.. 75	114218.0	424695.1
20..27	9449520.0	125085350.8	69.. 76	93818.3	330876.8
21..28	8866584.4	116218766.4	70.. 77	76214.0	254662.8
22..29	8312770.3	107905996.1	71.. 78	61441.1	193221.7
23..30	7784288.5	100121707.6	72.. 79	49078.6	144143.07
24..31	7287019.8	92834687.8	73.. 80	38399.62	105743.45
25..32	6820464.2	86014223.6	74.. 81	29610.51	76132.94
26..33	6382848.0	79631375.6	75.. 82	22224.41	53908.53
27..34	5973463.2	73657912.4	76.. 83	16450.87	37457.66
28..35	5587507.4	68070405.0	77.. 84	11933.66	25524.00
29..36	5221036.7	62849368.3	78.. 85	8533.57	16990.43
30..37	4871593.4	57977774.9	79.. 86	5973.27	11017.155
31..38	4542884.9	53434890.0	80.. 87	4044.972	6972.183
32..39	4234580.6	49200309.4	81.. 88	2651.887	4320.296
33..40	3944665.3	45255644.1	82.. 89	1706.747	2613.549
34..41	3670697.5	41584946.6	83.. 90	1095.821	1517.728
35..42	3412739.8	38172206.8	84.. 91	655.267	862.4610
36..43	3170655.0	35001551.8	85.. 92	374.9781	487.4829
37..44	2944239.1	32057312.7	86.. 93	212.0581	275.4248
38..45	2732556.1	29324756.6	87.. 94	120.6582	154.7666
39..46	2535265.9	26789490.7	88.. 95	67.5500	87.2166
40..47	2350511.5	24438979.2	89.. 96	38.4799	48.7367
41..48	2177204.3	22261774.9	90.. 97	22.5008	26.2359
42..49	2016467.9	20245307.0	91.. 98	12.3244	13.91154
43..50	1866943.9	18378363.1	92.. 99	6.58739	7.324146
44..51	1728604.0	16649759.1	93..100	3.695783	3.628363
45..52	1598746.9	15051012.2	94..101	2.027864	1.600499
46..53	1477265.8	13573746.4	95..102	1.034624	.565875
47..54	1363691.6	12210054.8	96..103	.453263	.112613
48..55	1258164.6	10951890.2			

TABLE XXXI. 769

...tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent)

Difference of Age Eight Years.

D.	N.	Ages.	D.	N.
14238221.	473477509.3	48 & 56	1170775.8	10020102.0
35413056.1	438064453.2	49.. 57	1084124.0	8935978.0
30850577.2	407213876.0	50.. 58	997090.1	7938887.9
17350767.4	379863108.6	51.. 59	914189.6	7024698.3
14939188.8	354923919.8	52.. 60	833947.7	6190750.6
12954055.9	331969863.9	53.. 61	755989.0	5434781.6
11360566.1	310609297.8	54.. 62	682996.0	4751785.6
9962508.5	290626789.3	55.. 63	615560.3	4136225.3
8746791.9	271879997.4	56.. 64	553718.8	3582506.5
7617645.9	254262351.5	57.. 65	496756.7	3085749.8
6578010.7	237684340.8	58.. 66	444183.1	2641566.7
5608270.9	222076069.9	59.. 67	395247.3	2246319.4
4689644.4	207386425.5	60.. 68	349546.4	1896773.0
3821899.6	193564525.9	61.. 69	306807.3	1589965.7
3004541.6	180559984.3	62.. 70	267905.1	1322060.6
2230704.8	168329279.5	63.. 71	232918.9	1089141.7
1494645.6	156834633.9	64.. 72	200787.6	888354.1
0796712.4	146037921.5	65.. 73	171111.3	717242.9
0136797.7	135901123.8	66.. 74	144060.1	573182.8
9516240.7	126384883.1	67.. 75	119523.6	453659.2
8929634.4	117455248.7	68.. 76	98388.3	355270.9
8370911.2	109084337.5	69.. 77	80150.1	275120.8
7839116.6	101245220.9	70.. 78	64787.0	210333.8
7338709.5	93906511.4	71.. 79	52147.5	158186.27
6869190.0	87037321.4	72.. 80	41207.01	116979.26
6429877.1	80607444.2	73..	32119.60	84859.66
6017802.7	74589641.6	74.. 82	24426.95	60432.71
5631250.9	68958390.7	75.. 83	18188.25	42244.46
5266851.4	63691539.3	76.. 84	13303.54	28940.92
4919946.7	58771592.6	77.. 85	9560.69	19380.23
4589249.2	54182343.4	78.. 86	6702.67	12677.56
4278243.8	49904099.6	79.. 87	4588.25	8099.311
3985034.6	45919065.0	80.. 88	3019.413	5069.898
3707966.9	42211098.1	81.. 89	1970.409	3099.489
3447745.6	38763352.5	82.. 90	1275.233	1824.256
3203514.6	35559837.9	83.. 91	771.705	1052.5506
2975638.4	32584199.5	84.. 92	445.7605	606.7901
2762543.7	29821655.8	85.. 93	257.1277	349.6624
2563896.2	27257759.6	86.. 94	149.5999	200.0625
2378763.9	24878995.7	87.. 95	86.1846	113.8779
2204891.8	22673103.9	88.. 96	49.3223	64.5556
2044633.0	20628470.7	89.. 97	28.6807	35.8749
1894167.8	18734302.9	90.. 98	16.6672	19.2077
1754183.5	16980119.4	91.. 99	9.2224	9.985253
1622760.2	15357359.2	92..100	5.133031	4.852222
1499470.8	13857888.4	93..101	2.737618	2.114606
1384200.5	12473687.9	94..	1.379498	.735108
1276810.1	11196877.8	95..103	.591214	.143894

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 5 per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 11	37600725.	398744057.5	47 & 58	1040402.5	8493637.6
1..12	30152969.0	366591088.5	48.. 59	952755.1	7540852.5
2..13	26270354.7	342320733.8	49.. 60	869443.3	6671439.2
3..14	23273930.2	319046803.6	50.. 61	789360.1	5882079.1
4..15	21206793.2	297840010.4	51.. 62	715142.8	5166936.3
5..16	19495401.5	278344608.9	52.. 63	646340.1	4520696.2
6..17	18114185.2	260230423.7	53.. 64	582927.4	3937768.8
7..18	16921889.0	243308534.7	54.. 65	524480.9	3413287.9
8..19	15862109.8	227445424.9	55.. 66	470689.6	2942398.3
9..20	14903103.2	212542321.7	56.. 67	421709.6	2520688.7
10..21	14021587.9	198520733.8	57.. 68	376508.3	2144180.4
11..22	13201611.2	185319122.6	58.. 69	334778.1	1809402.3
12..23	12424843.0	172894279.6	59.. 70	295839.7	1513562.6
13..24	11691088.2	161203191.4	60.. 71	259646.2	1253916.4
14..25	10993098.4	150205093.0	61.. 72	224935.8	1028980.6
15..26	10340321.5	139864771.5	62.. 73	192485.9	836494.7
16..27	9714851.3	130149920.2	63.. 74	162677.5	673817.2
17..28	9118784.2	121031136.0	64.. 75	135569.4	538247.8
18..29	8549487.0	112481649.0	65.. 76	112136.0	426111.8
19..30	8006211.8	104475437.2	66.. 77	91863.2	334248.6
20..31	7495009.4	96980427.8	67.. 78	74770.8	259477.8
21..32	7015367.7	89965060.1	68.. 79	60644.0	198833.75
22..33	6567683.7	83397376.4	69.. 80	48552.36	150281.39
23..34	6148759.1	77248617.3	70.. 81	38617.52	111663.87
24..35	5755677.1	71492940.2	71.. 82	30211.93	81451.94
25..36	5386885.6	66106054.6	72.. 83	23270.10	58181.84
26..37	5039103.0	61066951.6	73.. 84	17536.08	40645.76
27..38	4712073.8	56354877.8	74.. 85	12951.60	27694.16
28..39	4403105.7	51951772.1	75.. 86	9255.52	18438.64
29..40	4107584.5	47844187.6	76.. 87	6430.35	12008.29
30..41	3823163.2	44021024.4	77.. 88	4305.75	7702.54
31..42	3554672.2	40466352.2	78.. 89	2855.56	4846.98
32..43	3302690.9	37163661.3	79.. 90	1901.41	2945.567
33..44	3068153.9	34095507.4	80.. 91	1180.473	1765.0936
34..45	2849876.0	31245631.4	81.. 92	705.2959	1059.7977
35..46	2646825.5	28598805.9	82.. 93	418.9160	640.8817
36..47	2457963.5	26140842.4	83.. 94	233.9533	366.9284
37..48	2282391.7	23858450.7	84.. 95	154.0258	232.9026
38..49	2120148.7	21738302.0	85.. 96	94.6052	138.2974
39..50	1969321.1	19768980.9	86.. 97	58.1536	80.1438
40..51	1828400.6	17940580.3	87.. 98	34.7431	45.4007
41..52	1694123.9	16246456.4	88.. 99	20.3770	25.02368
42..53	1567037.4	14679419.0	89..100	12.38771	12.63597
43..54	1447213.3	13232205.7	90..101	7.19891	5.43706
44..55	1335251.8	11896953.9	91..102	3.62119	1.815871
45..56	1230395.7	10666558.2	92..103	1.478034	.337837
46..57	1132518.1	9534040.1			

TABLE XXXI. **771**

ory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twelve Years.

D.	N.	Ages.	D.	N.
5637595.	376340526.8	46 & 58	1056049.3	8667133.2
3573527.7	347766999.1	47.. 59	966874.6	7700258.6
4889730.9	322877268.2	48.. 60	881730.2	6818528.4
2043185.7	300834082.5	49.. 61	800311.1	6018217.3
0071917.0	280762165.5	50.. 62	724869.3	5293348.0
8442498.0	262319667.5	51.. 63	655610.3	4637737.7
7132321.9	245187345.6	52.. 64	591925.2	4045812.5
6003877.8	229183467.8	53.. 65	533089.3	3512723.2
5001799.3	214181668.5	54.. 66	476962.5	3033740.7
4093215.2	200088453.3	55.. 67	429405.8	2604334.9
3261142.7	186827310.6	56.. 68	383800.6	2220534.3
2485025.8	174342284.8	57.. 69	341923.3	1878611.0
1749837.4	162592447.4	58.. 70	303178.5	1575432.5
1055389.1	151537058.3	59.. 71	267201.0	1308231.6
0397767.7	141139290.6	60.. 72	232729.6	1075501.9
9775365.5	131363925.1	61.. 73	199629.7	875872.2
9180368.0	122183557.1	62.. 74	168999.4	706872.8
8609012.2	113574544.9	63.. 75	140961.0	565911.8
8062345.4	105512199.5	64.. 76	116780.5	449131.3
7547929.9	97964269.6	65.. 77	95799.3	353332.0
7065253.7	90899015.9	66.. 78	78089.7	275242.3
6613619.2	84285396.7	67.. 79	63461.0	211781.28
6192067.6	78093329.1	68.. 80	50917.49	160863.79
5796504.3	72296824.8	69.. 81	40611.94	120251.85
5425370.0	66871454.8	70.. 82	31857.20	88394.65
5076231.5	61795223.3	71.. 83	24725.16	63669.49
4747050.4	57048172.9	72.. 84	18818.14	44851.35
4437576.8	52610596.1	73.. 85	14049.08	30802.27
4143628.6	48466967.5	74.. 86	10172.78	20629.49
3861110.3	44605857.2	75.. 87	7109.47	13520.02
3590950.8	41014906.4	76.. 88	4800.00	8720.02
3336745.5	37678160.9	77.. 89	3199.27	5520.75
3099553.2	34578607.7	78.. 90	2133.59	3387.16
2878811.5	31699796.2	79.. 91	1339.02	2048.1425
2673974.9	29025821.3	80.. 92	803.0431	1245.0994
2483436.9	26542384.4	81.. 93	483.6313	761.4681
2306732.5	24235651.9	82.. 94	295.5314	465.9367
2143415.7	22092236.2	83.. 95	181.3953	284.5414
1991560.3	20100675.9	84.. 96	112.4633	172.0781
1850377.4	18250298.5	85.. 97	70.5133	101.5648
1716446.2	16533852.3	86.. 98	43.0767	58.4881
1588925.1	14944927.2	87.. 99	25.9982	32.48994
1468316.6	13476610.6	88..100	15.87817	16.61177
1355010.6	12121600.0	89..101	9.17608	7.43569
1248876.4	10872723.6	90..102	4.89722	2.53847
1149541.1	9723182.5	91..103	2.06925	.469217

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 13	33770864.	355088193.5	46 & 59	981415.6	7855309.5
1..14	27071861.9	328016331.6	47.. 60	894797.1	6960512.4
2..15	23573541.8	304442789.8	48.. 61	811620.9	6148891.5
3..16	20863550.1	283579239.7	49.. 62	734925.5	5413966.0
4..17	18987877.2	264591362.5	50.. 63	664527.0	4749439.0
5..18	17442838.9	247148523.6	51.. 64	600508.0	4148931.0
6..19	16202894.8	230945628.8	52.. 65	541317.9	3607613.1
7..20	15134924.1	215810704.7	53.. 66	486844.2	3120768.9
8..21	14186547.6	201624157.1	54.. 67	436785.7	2683983.2
9..22	13328885.3	188295271.8	55.. 68	390805.0	2293178.2
10..23	12541325.9	175753945.9	56.. 69	348545.8	1944632.4
11..24	11806750.7	163947195.2	57.. 70	309649.2	1634983.2
12..25	11110943.9	152836251.3	58.. 71	273829.4	1361153.8
13..26	10451931.4	142384319.9	59.. 72	239501.3	1121652.5
14..27	9829673.1	132554646.8	60.. 73	206346.7	915105.8
15..28	9237552.9	123317093.9	61.. 74	175271.7	739834.1
16..29	8667153.2	114649940.7	62.. 75	146439.2	593394.9
17..30	8118478.9	106531461.8	63.. 76	121424.8	471970.1
18..31	7600850.3	98930611.5	64.. 77	99767.2	372202.9
19..32	7115139.7	91815471.8	65.. 78	81435.6	290767.3
20..33	6660648.4	85154823.4	66.. 79	66277.8	224489.49
21..34	6235375.8	78919447.6	67.. 80	53282.62	171206.87
22..35	5837331.6	73082116.0	68.. 81	42590.25	128616.62
23..36	5463854.3	67618261.7	69.. 82	33502.47	95114.15
24..37	5112496.5	62505765.2	70.. 83	26071.64	69042.51
25..38	4782027.0	57723738.2	71.. 84	19994.82	49047.69
26..39	4470515.8	53253222.4	72.. 85	15076.20	33971.49
27..40	4176068.3	49077154.1	73.. 86	11034.79	22936.70
28..41	3894991.6	45182162.5	74.. 87	7814.05	15122.65
29..42	3626592.9	41555569.6	75.. 88	5306.93	9815.72
30..43	3370800.0	38184769.6	76.. 89	3566.51	6249.21
31..44	3131513.1	35053256.5	77.. 90	2390.39	3858.82
32..45	2908273.0	32144983.5	78.. 91	1502.53	2356.294
33..46	2701124.3	29443859.2	79.. 92	910.902	1445.3924
34..47	2508910.5	26934948.7	80.. 93	550.6578	894.7346
35..48	2330638.7	24604310.0	81.. 94	341.1859	553.5487
36..49	2166274.4	22438035.6	82.. 95	211.0940	342.4547
37..50	2013416.0	20424619.6	83.. 96	132.4474	210.0073
38..51	1871273.4	18553346.2	84.. 97	83.8236	126.1837
39..52	1737077.4	16816268.8	85.. 98	52.2320	73.9517
40..53	1609861.3	15206407.5	86.. 99	32.2342	41.71750
41..54	1488825.6	13717581.9	87..100	20.25836	21.45914
42..55	1374769.5	12342812.4	88..101	11.76161	9.69753
43..56	1267357.1	11075455.3	89..102	6.24223	3.45530
44..57	1166807.2	9908648.1	90..103	2.79840	.65690
45..58	1071923.0	8836725.1			

TABLE XXXI. 773

Preparatory **Table** for finding the **Values of Annuities, &c. on Two Joint Lives.**
(Carlisle 5 per Cent.)

Difference of Age Fourteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 14	31996055.	334930273.2	45 & 59	996167.5	8006886.3
1..15	25640279.7	309289993.5	46.. 60	908254.1	7098632.2
2..16	22312009.5	286977984.0	47.. 61	823649.0	6274983.2
3..17	19736755.9	267241228.1	48.. 62	745311.4	5529671.8
4..18	17958656.2	249282571.9	49.. 63	673746.1	4855925.7
5..19	16496566.2	232786005.7	50.. 64	608675.2	4247250.5
6..20	15323135.2	217462870.5	51.. 65	549166.7	3698083.8
7..21	14312438.1	203150432.4	52.. 66	494359.0	3203724.8
8..22	13417156.1	189733276.3	53.. 67	443954.8	2759770.0
9..23	12605391.4	177127884.9	54.. 68	397521.5	2362248.5
10..24	11859992.1	165267892.8	55.. 69	354906.7	2007341.8
11..25	11164762.5	154103130.3	56.. 70	315646.7	1691695.1
12..26	10504453.6	143598676.7	57.. 71	279673.7	1412021.4
13..27	9880877.3	133717799.4	58.. 72	245442.6	1166578.8
14..28	9288872.7	124428926.7	59.. 73	212556.5	954022.3
15..29	8721141.2	115707785.5	60.. 74	181344.5	772677.8
16..30	8173307.0	107534478.5	61.. 75	151874.0	620803.8
17..31	7653770.7	99880707.8	62.. 76	126143.7	494660.1
18..32	7165025.7	92715682.1	63.. 77	103734.9	390925.2
19..33	6707677.7	86008004.4	64.. 78	84808.5	306116.7
20..34	6279715.3	79728289.1	65.. 79	69117.8	236998.93
21..35	5878158.8	73850130.3	66.. 80	55647.73	181351.20
22..36	5502338.7	68347791.6	67.. 81	44568.58	136782.62
23..37	5148761.5	63199030.1	68.. 82	35134.46	101648.16
24..38	4816190.2	58382839.9	69.. 83	27418.11	74230.05
25..39	4503454.8	53879385.1	70.. 84	21083.69	53146.36
26..40	4207066.2	49672318.9	71.. 85	16018.90	37127.46
27..41	3925484.8	45746834.1	72.. 86	11841.54	25285.92
28..42	3658416.4	42098417.7	73.. 87	8476.18	16809.74
29..43	3404256.9	38684160.8	74.. 88	5832.88	10976.86
30..44	3163473.1	35520687.7	75.. 89	3943.17	7033.69
31..45	2938260.6	32582427.1	76.. 90	2664.79	4368.90
32..46	2728767.4	29853659.7	77.. 91	1683.37	2685.532
33..47	2534384.0	27319275.7	78.. 92	1022.131	1663.401
34..48	2354545.0	24964730.7	79.. 93	624.618	1038.7830
35..49	2188725.0	22776005.7	80.. 94	388.4710	650.3120
36..50	2034888.4	20741117.3	81.. 95	243.7043	406.6077
37..51	1891809.2	18849308.1	82.. 96	154.1322	252.4755
38..52	1756693.8	17092614.3	83.. 97	98.7185	153.7570
39..53	1629211.3	15463403.0	84.. 98	62.0915	91.6655
40..54	1508442.8	13954960.2	85.. 99	39.0852	52.58026
41..55	1393971.8	12560988.4	86..100	25.11762	27.46264
42..56	1285837.7	11275150.7	87..101	15.00619	12.45645
43..57	1184073.6	10091077.1	88..102	8.00108	4.45537
44..58	1088023.3	9003053.8	89..103	3.56699	.88838

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 5 per Cent.)

Difference of Age Fifteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 15	30304077.	315816680.4	45 & 60	921906.3	7233687.4
1..16	24268146.7	291548533.7	46.. 61	836035.9	6397651.5
2..17	21106987.1	270441546.6	47.. 62	756356.6	5641294.9
3..18	18666942.7	251774603.9	48.. 63	683267.4	4958027.5
4..19	16984400.5	234790203.4	49.. 64	617119.6	4340907.9
5..20	15600861.2	219189342.2	50.. 65	556635.8	3784272.1
6..21	14490421.1	204698921.1	51.. 66	501527.0	3282745.1
7..22	13536218.9	191162702.2	52.. 67	450807.5	2831937.6
8..23	12688870.9	178473831.3	53.. 68	404046.1	2427891.5
9..24	11920577.2	166553254.1	54.. 69	361006.3	2066885.2
10..25	11215109.0	155338145.1	55.. 70	321407.2	1745478.0
11..26	10555334.5	144782810.6	56.. 71	285090.5	1460387·5
12..27	9930530.0	134852280.6	57.. 72	250681.0	1209706.5
13..28	9337259.8	125515020.8	58.. 73	217829.3	991877.2
14..29	8769591.9	116745428.9	59.. 74	186621.0	805256.2
15..30	8224218.9	108521210.0	60.. 75	157136.2	648120.0
16..31	7705460.5	100815749.5	61.. 76	130825.4	517294.6
17..32	7214911.8	93600837.7	62.. 77	107766.3	409528.3
18..33	6754706.8	86846130.9	63.. 78	88181.5	321346.8
19..34	6324054.9	80522076.0	64.. 79	71980.5	249366.33
20..35	5919958.2	74602117.8	65.. 80	58032.10	191334.23
21..36	5540822.9	69061294.9	66.. 81	46546.89	144787.34
22..37	5185026.4	63876268.5	67.. 82	36766.47	108020.87
23..38	4850353.3	59025915.2	68.. 83	28753.72	79267.15
24..39	4535627.9	54490287.3	69.. 84	22172.57	57094.58
25..40	4238064.1	50252223.2	70.. 85	16891.26	40203.32
26..41	3954622.6	46297600.6	71.. 86	12581.98	27621.34
27..42	3687057.4	42610543.2	72.. 87	9095.88	18525.46
28..43	3434129.4	39176413.8	73.. 88	6327.14	12198.32
29..44	3194872.3	35981541.5	74.. 89	4333.94	7864.38
30..45	2968248.3	33013293.2	75.. 90	2946.20	4918.18
31..46	2756904.2	30256389.0	76.. 91	1876.62	3041.560
32..47	2560320.7	27696068.3	77.. 92	1145.157	1896.403
33..48	2378451.2	25317617.1	78.. 93	700.889	1195.514
34..49	2211175.5	23106441.6	79.. 94	440.648	754.865
35..50	2055977.3	21050464.3	80.. 95	277.4794	477.386
36..51	1911984.6	19138479.7	81.. 96	177.9429	299.443
37..52	1775972.2	17362507.5	82.. 97	114.8811	184.562
38..53	1647609.7	15714897.8	83.. 98	73.1248	111.437
39..54	1526573.8	14188324.0	84.. 99	46.4630	64.974
40..55	1412339.2	12775984.8	85..100	30.45598	34.518
41..56	1303797.8	11472187.0	86..101	18.60564	15.912
42..57	1201339.8	10270847.2	87..102	10.20828	5.704
43..58	1104123.7	9166723.5	88..103	4.57204	1.132
44..59	1011129.8	8155593.7			

TABLE XXXI.

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tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Sixteen Years.

D.	N.	Ages.	D.	N.
23682362.	297707939.7	45 & 61	848602.5	6517645.7
22957477.6	274750462.1	46.. 62	767731.7	5749914.0
19962901.8	254787560.3	47.. 63	693393.3	5056520.7
17654262.6	237133297.7	48.. 64	625840.6	4430680.1
16062207.9	221071089.8	49.. 65	564358.1	3866322.0
14753054.6	206318035.2	50.. 66	508348.1	3357973.9
13704549.4	192613485.8	51.. 67	457344.0	2900629.9
12801471.0	179812014.8	52.. 68	410282.8	2490347.1
11999521.6	167812493.2	53.. 69	366931.6	2123416.5
11272399.7	156540093.5	54.. 70	326931.1	1796484.4
10602932.8	145937160.7	55.. 71	290293.3	1506191.1
9978631.0	135958529.7	56.. 72	255536.3	1250654.8
9384180.7	126574349.0	57.. 73	222478.5	1028176.3
8815274.1	117759074.9	58.. 74	191250.5	836925.8
8269909.1	109489165.8	59.. 75	161708.4	675217.4
7753458.1	101735707.7	60.. 76	135358.3	539859.1
7263637.6	94472070.1	61.. 77	111765.8	428093.3
6801736.0	87670334.1	62.. 78	91608.4	336484.9
6368394.4	81301939.7	63.. 79	74843.3	261641.61
5961757.6	75340182.1	64.. 80	60435.68	201205.93
5580223.5	69759958.6	65.. 81	48541.30	152664.63
5221291.3	64538667.3	66.. 82	38398.47	114266.16
4884516.4	59654150.9	67.. 83	30069.35	84176.81
4567800.8	55086350.1	68.. 84	23252.66	60924.15
4268341.2	50818008.9	69.. 85	17763.61	43160.54
3983760.5	46834248.4	70.. 86	13267.17	29893.37
3714425.6	43119822.8	71.. 87	9664.64	20228.73
3461014.5	39658808.3	72.. 88	6789.71	13439.02
3222907.3	36435901.0	73.. 89	4701.20	8737.82
2997709.7	33438191.3	74.. 90	3238.21	5499.61
2785040.8	30653150.5	75.. 91	2074.79	3424.820
2586720.5	28066430.0	76.. 92	1276.611	2148.209
2402792.0	25663638.0	77.. 93	785.251	1362.958
2233626.1	23430011.9	78.. 94	494.455	868.503
2077066.2	21352945.7	79.. 95	314.748	553.7553
1931799.7	19421146.0	80.. 96	202.6041	351.1512
1794912.2	17626233.8	81.. 97	132.6283	218.5229
1665690.9	15960542.9	82.. 98	85.0971	133.4259
1543813.1	14416729.8	83.. 99	54.7192	78.70659
1429315.0	12987414.8	84..100	36.20497	42.50162
1320977.1	11666437.7	85..101	22.55998	19.94164
1218119.7	10448318.0	86..102	12.65689	7.28475
1120224.1	9328093.9	87..103	5.83330	1.45145
1026092.4	8302001.5			
935753.3	7366248.2			

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Seventeen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 17	27133291.	280562382.3	45 & 62	779271.6	5856224.5
1..18	21713088.0	258849294.3	46..63	705821.3	5152403.3
2..19	18879916.1	239969378.2	47..64	635115.4	4517287.8
3..20	16695698.9	223273679.3	48..65	572333.6	3944954.2
4..21	15189330.1	208084349.2	49..66	513400.5	3429553.7
5..22	13952939.0	194131410.2	50..67	463564.1	2965989.6
6..23	12960664.3	181170745.9	51..68	416231.9	2549757.7
7..24	12106004.4	169064741.5	52..69	372595.4	2177162.3
8..25	11347051.4	157717690.1	53..70	332297.0	1844865.3
9..26	10657096.4	147060593.7	54..71	295282.5	1549582.8
10..27	10023628.7	137036965.0	55..72	260199.8	1289383.0
11..28	9429635.3	127607329.7	56..73	226787.6	1062595.4
12..29	8859572.0	118747757.7	57..74	193332.5	867262.9
13..30	8312988.2	110434769.5	58..75	165719.9	701543.0
14..31	7796532.8	102636236.7	59..76	139296.8	562246.2
15..32	7308883.1	95329353.6	60..77	115638.5	446607.7
16..33	6847671.6	88481682.0	61..78	95008.4	351599.3
17..34	6412734.0	82068948.0	62..79	77751.8	273847.52
18..35	6003557.0	76065391.0	63..80	62839.26	211008.26
19..36	5619624.2	70445766.8	64..	50551.80	160156.46
20..37	5258419.7	65187347.1	65..82	40043.74	120412.72
21..38	4918679.5	60268667.6	66..83	31424.93	88987.77
22..39	4599973.9	55668693.7	67..84	24332.75	64655.07
23..40	4298618.2	51370075.5	68..85	18628.91	46026.11
24..41	4012220.8	47357854.7	69..86	13952.35	33073.76
25..42	3741793.6	43616061.1	70..87	10190.94	21882.82
26..43	3486704.8	40129356.3	71..88	7214.26	14668.54
27..44	3248138.8	36881217.5	72..89	5044.90	9623.64
28..45	3024014.6	33857202.9	73..90	3512.61	6111.03
29..46	2812683.9	31044519.0	74..91	2280.42	3830.609
30..47	2613120.3	28431398.7	75..92	1411.434	2419.175
31..48	2427567.5	26003831.2	76..93	875.390	1543.785
32..49	2256484.6	23747346.4	77..94	553.968	989.817
33..50	2098155.2	21649191.2	78..95	353.182	636.635
34..51	1951615.0	19697576.2	79..96	229.816	406.8186
35..52	1813514.1	17884062.1	80..97	151.0092	255.8094
36..53	1683454.9	16200607.2	81..98	98.2431	157.5663
37..54	1560755.2	14639852.0	82..99	63.6781	93.8881
38..55	1445456.1	13194395.9	83..100	42.63838	51.3497
39..56	1336954.7	11857541.2	84..101	26.81849	24.4313
40..57	1234170.0	10623371.2	85..102	13.34692	9.0843
41..58	1135870.9	9487500.3	86..103	7.33252	1.8510
42..59	1041055.1	8446445.2			
43..60	949600.4	7496844.8			
44..61	861348.7	6635496.1			

TABLE XXXI.

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reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Eighteen Years.

a.	D.	N.	Ages.	D.	N.
18	25662555.	264332786.0	45 & 63	714400.5	5246313.3
19	20535154.7	243797631.3	46.. 64	644667.0	4601646.3
20	17854803.7	225942827.6	47.. 65	580815.4	4020830.9
21	15788394.8	210154432.8	48.. 66	522684.0	3498146.9
22	14365553.6	195788879.2	49.. 67	469995.5	3028151.4
	13195571.5	182593307.7	50.. 68	421892.8	2606258.6
	12256549.2	170336758.5	51.. 69	377997.8	2228260.8
	11447744.3	158889014.2	52.. 70	337426.3	1890834.5
	10727673.2	148161341.0	53.. 71	300129.0	1590705.5
	10074833.0	138086508.0	54.. 72	264671.7	1326033.8
	9472157.4	128614350.6	55.. 73	230926.4	1095107.4
	8902485.5	119711865.1	56.. 74	199115.8	895991.6
	8354762.0	111357103.1	57.. 75	169256.8	726734.8
	7837146.2	103519956.9	58.. 76	142752.3	583962.5
	7349488.0	96170468.9	59.. 77	119003.2	464979.3
	6890326.0	89280142.9	60.. 78	98300.2	366679.1
	6456042.4	82824100.5	61.. 79	80637.4	286041.66
	6045356.3	76778744.2	62.. 80	65281.30	220760.36
	5659024.7	71119719.5	63.. 81	52562.28	168198.08
	5295548.2	65824171.3	64.. 82	41702.28	126495.80
	4953656.1	60870515.2	65.. 83	32771.43	93724.37
	4632146.8	56238368.4	66.. 84	25412.83	68311.54
	4328895.2	51909473.2	67.. 85	19494.24	48817.30
	4040681.1	47868792.1	68.. 86	14632.00	34185.30
	3768525.3	44100266.8	69.. 87	10717.26	23468.04
	3512395.1	40587871.7	70.. 88	7607.15	15860.89
	3272249.0	37315622.7	71.. 89	5360.37	10500.52
	3047689.1	34267933.6	72.. 90	3769.40	6731.12
	2837365.3	31430568.3	73.. 91	2473.66	4257.462
	2639056.9	28791511.4	74.. 92	1551.315	2706.147
	2452343.0	26339168.4	75.. 93	967.840	1738.307
	2279751.8	24059416.6	76.. 94	617.559	1120.748
	2119627.5	21939789.1	77.. 95	395.691	725.057
	1971430.1	19968359.0	78.. 96	257.879	467.178
	1832116.1	18136242.9	79.. 97	171.291	295.8866
	1700901.6	16435341.3	80.. 98	111.8587	184.0279
	1577400.1	14857941.2	81.. 99	73.5151	110.51284
	1461318.9	13396622.3	82..100	49.61930	60.89354
	1351951.7	12044670.6	83..101	31.58397	29.30957
	1249004.4	10795666.2	84..102	18.24386	11.06571
	1150837.5	9644828.7	85..103	8.76968	2.29603
	1055596.2	8589232.5			
	963447.7	7625784.8			
	874094.7	6751690.1			
	790976.3	5960713.8			

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 5 per Cent.)

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D,	N.
0 & 19	24270364.	248970748.1	45 & 64	654357.1	4684338.4
1..20	19420168.9	229550579.2	46.. 65	589550.3	4694768.1
2..21	16884509.8	212666069.4	47.. 66	530430.2	3564357.9
3..22	14932128.8	197733940.6	48.. 67	476637.2	3087720.7
4..23	13585789.2	184148151.4	49.. 68	427745.8	2659974.9
5..24	12478694.6	171669456.8	50.. 69	383138.8	2276836.1
6..25	11590103.3	160079353.5	51.. 70	342318.9	1934517.2
7..26	10822869.8	149256483.7	52.. 71	304761.6	1629755.6
8..27	10141553.9	139114929.8	53.. 72	269015.8	1360739.8
9..28	9520544.5	129594385.3	54.. 73	234895.3	1125844.5
10..29	8942630.5	120651754.8	55.. 74	202749.6	923094.9
11..30	8395230.3	112256524.5	56.. 75	172535.1	750559.8
12..31	7876528.8	104379995.7	57.. 76	145799.0	604760.8
13..32	7387772.6	96992223.1	58.. 77	124955.3	462805.5
14..33	6928605.6	90063617.5	59.. 78	101160.4	381645.1
15..34	6496257.3	83567360.2	60.. 79	83431.4	298213.65
16..35	6086183.7	77481176.5	61.. 80	67704.12	230509.53
17..36	5698425.3	71782751.2	62.. 81	54604.95	175904.58
18..37	5332676.6	66450074.6	63.. 82	43360.82	132543.76
19..38	4988632.6	61461442.0	64.. 83	34128.77	98414.99
20..39	4665085.9	56796356.1	65.. 84	26501.70	71913.29
21..40	4359172.3	52437183.8	66.. 85	20359.54	51553.75
22..41	4069141.3	48368042.5	67.. 86	15311.68	36242.07
23..42	3795256.9	44572785.6	68.. 87	11239.32	25002.75
24..43	3537487.8	41035297.8	69.. 88	8000.02	17002.73
25..44	3296359.1	37738939.7	70.. 89	5652.27	11350.46
26..45	3070311.3	34668627.4	71.. 90	4005.10	7345.36
27..46	2859578.5	31809048.9	72.. 91	2654.50	4690.861
28..47	2662214.7	29146834.2	73.. 92	1682.766	3008.095
29..48	2476683.8	26670150.4	74.. 93	1063.757	1944.338
30..49	2303018.6	24367131.8	75.. 94	682.778	1261.560
31..50	2141483.3	22225649.5	76.. 95	441.114	820.446
32..51	1991605.6	20234042.9	77.. 96	288.918	531.528
33..52	1850717.9	18383325.0	78.. 97	192.208	339.320
34..53	1718348.4	16664976.6	79.. 98	126.882	212.4381
35..54	1593747.8	15071228.8	80.. 99	83.7037	128.73440
36..55	1476903.2	13594325.6	81..100	57.28462	71.44978
37..56	1366788.3	12227537.3	82..101	36.75502	34.69476
38..57	1263109.1	10964428.2	83..102	21.48568	13.90908
39..58	1164670.3	9799757.9	84..103	10.42506	2.78401
40..59	1069505.0	8730252.9			
41..60	976904.7	7753348.2			
42..61	886840.9	6866507.3			
43..62	802681.0	6063826.3			
44..63	725130.8	5338695.5			

TABLE XXXI. 773

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 20	22952569.	234430461.9	45 & 65	598412.1	4167351.3
1..21	18364807.2	216065654.7	46.. 66	538407.3	3628944.0
2..22	15968797.1	200096857.6	47.. 67	483700.9	3145243.1
3..23	14121610.5	185975247.1	48.. 68	433790.7	2711452.4
4..24	12847712.9	173127534.2	49.. 69	388454.2	2322998.2
5..25	11800169.5	161327364.7	50.. 70	346974.6	1976023.6
6..26	10957458.2	150369906.5	51.. 71	309180.7	1666842.9
7..27	10231549.3	140138357.2	52.. 72	273168.3	1393674.6
8..28	9583594.5	130554762.7	53.. 73	236750.7	1154923.9
9..29	8988312.6	121566450.1	54.. 74	206234.2	948689.7
10..30	8433087.9	113133362.2	55.. 75	175683.8	773005.9
11..31	7914680.7	105218681.5	56.. 76	148623.0	624382.9
12..32	7424897.1	97793784.4	57.. 77	124558.1	499824.8
13..33	6964697.8	90829086.6	58.. 78	103669.9	396154.9
14..34	6532347.7	84296738.9	59.. 79	85859.0	310295.92
15..35	6124094.8	78172644.1	60.. 80	70050.01	240245.91
16..36	5736909.6	72435734.5	61.. 81	56631.53	183614.38
17..37	5369805.0	67065929.5	62.. 82	45045.90	138568.48
18..38	5023609.2	62042320.3	63.. 83	35486.09	103082.39
19..39	4698025.0	57344295.3	64.. 84	27599.35	75483.04
20..40	4390170.2	52954125.1	65.. 85	21231.90	54251.14
21..41	4097601.5	48856523.6	66.. 86	15991.31	33259.83
22..42	3821988.6	45034535.0	67.. 87	11761.39	26498.44
23..43	3562580.6	41471954.4	68.. 88	8389.71	18108.73
24..44	3319908.5	38152045.9	69.. 89	5944.19	12164.54
25..45	3092933.6	35059112.3	70.. 90	4223.22	7941.32
26..46	2880804.4	32178307.9	71.. 91	2820.49	5120.831
27..47	2683056.7	29495251.2	72.. 92	1805.794	3315.037
28..48	2498416.8	26996834.4	73.. 93	1153.897	2161.140
29..49	2325877.3	24670957.1	74.. 94	750.446	1410.694
30..50	2163339.1	22507618.0	75.. 95	487.699	922.995
31..51	2012141.3	20495476.7	76.. 96	322.083	600.912
32..52	1869658.0	18625818.7	77.. 97	215.343	385.569
33..53	1735795.2	16890023.5	78.. 98	142.376	243.193
34..54	1610095.4	15279928.1	79.. 99	94.946	148.24723
35..55	1492209.4	13787718.7	80..100	65.22371	83.02352
36..56	1381364.5	12406354.2	81..101	42.43304	40.59048
37..57	1276970.8	11129383.4	82..102	25.00341	15.58707
38..58	1177822.6	9951560.8	83..103	12.27753	3.30954
39..59	1082360.2	8869200.6			
40..60	989776.6	7879424.0			
41..61	899228.0	6980196.0			
42..62	814385.8	6165810.2			
43..63	735861.3	5429948.9			
44..64	664185.5	4765763.4			

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 5 per Cent.)

Difference of Age Twenty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 21	21705244.	220669533.3	42 & 63	746591.6	5520292.1
1..22	17368812.5	203299720.8	43.. 64	674014.2	4846277.9
2..23	15102008.3	188197712.5	44.. 65	607400.2	4238877.7
3..24	13354424.5	174843288.0	45.. 66	546500.2	3692377.5
4..25	12149122.5	162694165.5	46.. 67	490975.3	3201402.2
5..26	11156057.9	151538107.6	47.. 68	440219.3	2761182.9
6..27	10358784.1	141179323.5	48.. 69	393943.8	2367239.1
7..28	9668638.6	131511684.9	49.. 70	351789.3	2015450.8
8..29	9047837.9	122462847.0	50.. 71	313385.7	1702065.1
9..30	8476167.1	113986679.9	51.. 72	277129.0	1424936.1
10..31	7950371.2	106036308.7	52.. 73	242435.9	1182500.2
11..32	7460861.4	98575447.3	53.. 74	209619.2	972881.0
12..33	6999696.2	91575751.1	54.. 75	178703.2	794177.8
13..34	6566375.6	85009375.5	55.. 76	151335.4	642842.4
14..35	6158117.6	78851257.9	56.. 77	126970.6	515871.8
15..36	5772645.0	73078612.9	57.. 78	105882.6	409989.2
16..37	5406070.0	67672542.9	58.. 79	87988.9	322000.32
17..38	5058385.7	62613957.2	59.. 80	72088.24	249912.06
18..39	4730963.9	57882993.3	60.. 81	58593.77	191318.31
19..40	4421168.1	53461825.2	61.. 82	46717.71	144600.60
20..41	4126739.5	49335085.7	62.. 83	36865.15	107735.45
21..42	3848720.2	45486365.5	63.. 84	29697.00	79038.45
22..43	3587673.5	41898692.0	64.. 85	22111.29	56927.16
23..44	3343457.9	38555234.1	65.. 86	16676.52	40250.64
24..45	3115029.8	35440204.3	66.. 87	12283.47	27967.17
25..46	2902030.3	32538174.0	67.. 88	8779.42	19187.75
26..47	2702972.3	29835201.7	68.. 89	6233.74	12954.01
27..48	2517976.5	27317225.2	69.. 90	4441.32	8512.89
28..49	2346286.9	24970938.3	70.. 91	2974.10	5538.594
29..50	2184811.3	22786127.0	71.. 92	1918.708	3619.886
30..51	2032677.0	20753450.0	72.. 93	1238.257	2381.629
31..52	1888936.3	18864513.7	73.. 94	814.036	1567.593
32..53	1753559.2	17110954.5	74.. 95	536.032	1031.561
33..54	1626443.1	15484511.4	75.. 96	356.098	675.463
34..55	1507515.5	13976995.9	76.. 97	240.062	435.401
35..56	1395680.6	12581315.3	77.. 98	159.513	275.888
36..57	1290589.3	11290726.0	78.. 99	106.539	169.3491
37..58	1190748.4	10099977.6	79..100	73.9440	95.36513
38..59	1094383.1	9005394.5	80..101	48.31385	47.05128
39..60	1001673.5	8003721.0	81..102	28.86599	18.18529
40..61	911076.4	7092644.6	82..103	14.28766	3.89763
41..62	825760.9	6266883.7			

Difference of Age Twenty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 22	20528085.	207640651.9	5 & 27	10546533.2	142272281.9
1..23	16426030.8	191214621.1	6.. 28	9788863.5	131603704.4
2..24	14281560.3	176933060.8	7.. 29	9128127.8	123355270.6
3..25	12628282.1	164304778.7	8.. 30	8532300.7	114823969.9
4..26	11485963.6	152818815.1	9.. 31	7990984.5	106831985.4

TABLE XXXI. 781

...ary Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Two Years—*continued.*

D.	N.	Ages.	D.	N.
7494505.5	99337479.9	46 & 68	446839.9	2809781.5
7033601.0	92303878.9	47 .. 69	399782.0	2409999.5
5599372.5	85704506.4	48 .. 70	356759.6	2053239.9
5190196.1	79514310.3	49 .. 71	317733.4	1735506.5
5804715.3	73709595.0	50 .. 72	280898.3	1454608.2
5439744.6	68269850.4	51 .. 73	245951.0	1208657.2
5092748.9	63177101.5	52 .. 74	212854.7	995802.5
1763903.0	58413198.5	53 .. 75	181636.2	814166.3
1452166.1	53961032.4	54 .. 76	153936.3	660230.0
1155877.5	49805154.9	55 .. 77	129287.7	530942.3
3976088.3	45929066.6	56 .. 78	107933.3	433009.0
1612766.3	42316300.3	57 .. 79	89866.8	333142.24
1367007.5	38949292.8	58 .. 80	73876.52	259265.72
1137125.9	35812166.9	59 .. 81	60298.66	198967.06
2922762.7	32889404.2	60 .. 82	48336.43	150630.63
1722887.8	30166516.4	61 .. 83	39233.34	112397.29
1536666.7	27629849.7	62 .. 84	29812.22	82585.07
1364655.6	25265194.1	63 .. 85	22990.67	59594.40
1203983.1	23061211.0	64 .. 86	17367.23	42227.17
1052852.5	21008358.5	65 .. 87	12809.78	29417.39
908214.6	19100143.9	66 .. 88	9169.13	20248.26
771640.4	17328503.5	67 .. 89	6523.30	13724.96
643088.0	15685415.5	68 .. 90	4657.67	9067.29
522821.7	14162593.8	69 .. 91	3127.69	5939.597
409996.5	12752597.3	70 .. 92	2023.197	3916.400
303964.6	11446632.7	71 .. 93	1315.685	2600.715
203447.2	10245185.5	72 .. 94	873.550	1727.165
106595.3	9138590.2	73 .. 95	581.455	1145.710
012985.3	8125604.9	74 .. 96	391.390	754.320
922027.3	7203577.6	75 .. 97	265.415	488.905
836641.4	6366936.2	76 .. 98	177.824	311.081
757019.9	5609916.3	77 .. 99	119.363	191.7184
683842.7	4926073.6	78 ..100	83.0182	108.7002
616388.3	4309685.3	79 ..101	54.8030	53.89716
554708.7	3754976.6	80 ..102	32.86654	21.03062
498355.2	3256621.4	81 ..103	16.49486	4.53576

Difference of Age Twenty-Three Years.

D.	N.	Ages.	D.	N.
9413817.	195307712.8	10 & 33	7065318.3	93013710.4
5533652.2	179774060.6	11 .. 34	5631535.2	86382372.2
3505005.0	166269055.6	12 .. 35	6221007.6	80161069.6
1938968.1	154330087.5	13 .. 36	5834952.8	74326116.8
0858413.9	143471673.6	14 .. 37	5469965.5	68856151.3
9966293.0	133505380.6	15 .. 38	5124471.9	63731679.4
9241641.1	124263739.5	16 .. 39	4796076.0	58935603.4
8608015.7	115655723.8	17 .. 40	4483164.0	54452439.4
8043905.0	107611818.8	18 .. 41	4185015.3	50267424.1
7532790.1	100079028.7	19 .. 42	3903456.5	46363967.6

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Three Years—continued.

Ages.	D.	N.	Ages.	D.	N.
20 & 43	3638456.5	42725511.1	51 & 74	215941.1	1017530.7
21..44	3396556.9	39334954.2	52.. 75	184439.9	833090.8
22..45	3159222.1	36175732.1	53.. 76	156462.9	676627.9
23..46	2943495.1	33232237.0	54.. 77	131509.8	545118.1
24..47	2742340.6	30489896.4	55.. 78	109903.0	435215.1
25..48	2555357.1	27934539.3	56.. 79	91607.5	343607.58
26..49	2382207.8	25552331.5	57.. 80	75453.26	268154.32
27..50	2221237.7	23331093.8	58.. 81	61794.47	206359.85
28..51	2070866.2	21260227.6	59.. 82	49742.87	156616.98
29..52	1927154.7	19333072.9	60.. 83	39558.09	117058.89
30..53	1789721.6	17543351.3	61.. 84	30919.65	86140.24
31..54	1660030.2	15883321.1	62.. 85	23884.13	62256.11
32..55	1538406.1	14344915.0	63.. 86	18057.94	44198.17
33..56	1424312.6	12920602.4	64.. 87	13340.35	30857.82
34..57	1317339.8	11603262.6	65.. 88	9561.99	21295.83
35..58	1215919.4	10387343.2	66.. 89	6812.86	14482.97
36..59	1118396.7	9268946.5	67.. 90	4874.03	9608.94
37..60	1024102.0	8244844.5	68.. 91	3280.04	6328.898
38..61	932439.6	7312404.9	69.. 92	2127.685	4201.213
39..62	846697.5	6465707.4	70.. 93	1387.334	2813.879
40..63	766994.6	5698712.8	71.. 94	928.172	1885.707
41..64	693394.3	5005318.5	72.. 95	623.963	1261.744
42..65	625376.7	4379941.8	73.. 96	424.554	837.190
43..66	562917.2	3817024.6	74.. 97	291.718	545.472
44..67	505640.6	3311184.0	75.. 98	196.603	348.869
45..68	453556.4	2857627.6	76.. 99	133.065	215.8039
46..69	405794.3	2451833.3	77..100	93.0105	122.7934
47..70	362046.7	2089786.6	78..101	61.4950	61.2984
48..71	322223.5	1767563.1	79..102	37.2810	24.0173
49..72	284795.1	1482768.0	80..103	18.78089	5.2364
50..73	249296.3	1233471.8			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 24	18359121.	183632535.8	15 & 39	4825951.0	59450122.1
1..25	14689014.9	168943520.9	16.. 40	4513441.1	54936681.0
2..26	12767835.2	156175685.7	17.. 41	4214153.2	50722527.8
3..27	11286668.1	144889017.6	18.. 42	3930624.6	46791703.2
4..28	10261015.0	134628002.6	19.. 43	3664146.8	43127556.4
5..29	9409142.3	125218860.3	20.. 44	3414667.0	39712889.4
6..30	8715061.1	116503799.2	21.. 45	3181318.2	36531571.2
7..31	8115286.0	108388513.2	22.. 46	2964227.3	33567344.0
8..32	7582676.2	100805837.0	23.. 47	2761793.0	30805550.9
9..33	7101410.5	93704426.5	24.. 48	2573612.9	28231938.0
10..34	6661241.6	87043184.9	25.. 49	2399760.1	25832177.9
11..35	6251437.0	80791747.9	26.. 50	2237725.4	23594452.5
12..36	5864274.3	74927473.6	27.. 51	2087078.6	21507373.9
13..37	5498459.3	69429014.3	28.. 52	1944065.4	19563308.5
14..38	5152941.2	64276073.1	29.. 53	1807485.6	17755822.9

TABLE XXXI.   725

wy Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Four Years—continued.

D.	N.	Ages.	D.	N.
676972.2	16078850.7	55 & 79	93279.3	353399.34
554468.8	14524581.9	56.. 80	76914.65	276484.89
438888.8	13085693.1	57.. 81	63113.35	213371.54
330715.0	11754978.1	58.. 82	50976.83	162394.71
228391.5	10526586.6	59.. 83	40709.10	121685.61
129987.4	9396599.2	60.. 84	31989.96	89695.65
035023.6	8361575.6	61.. 85	24770.56	64925.09
942672.4	7418903.2	62.. 86	18759.70	46165.39
856259.1	6562644.1	63.. 87	13870.89	32294.50
776213.6	5786430.5	64.. 88	9958.03	22336.47
702530.6	5083699.9	65.. 89	7104.77	15231.70
634111.7	4449788.2	66.. 90	5090.36	10141.34
571125.7	3878662.5	67.. 91	3432.41	6708.931
513325.9	3365336.6	68.. 92	2231.330	4477.601
460368.8	2904967.8	69.. 93	1458.983	3019.618
411893.9	2493073.9	70.. 94	978.719	2039.899
367491.7	2125582.2	71.. 95	662.980	1376.919
326998.8	1798583.4	72.. 96	455.594	921.325
288819.9	1509763.5	73.. 97	316.437	604.888
252754.7	1257008.8	74.. 98	216.087	388.801
218877.9	1038130.9	75.. 99	147.118	241.6827
187114.2	851016.7	76..100	103.6672	137.9955
158877.9	692138.8	77..101	68.8966	69.0989
133668.2	558470.6	78..102	41.8333	27.2656
111791.8	446678.8	79..103	21.3034	5.96219

Difference of Age Twenty-Five Years.

D.	N.	Ages.	D.	N.
17360850.	172579621.4	20 & 45	3203940.4	36880306.5
13887215.9	158692405.5	21.. 46	2984959.5	33895347.0
12070248.9	146632156.6	22.. 47	2781245.7	31114101.3
10865707.6	135956449.8	23..	2591863.5	28522237.8
9687388.2	126269060.6	24..	2416904.2	26105338.6
8873018.3	117396042.3	25..	2254213.1	23851115.5
8216204.1	109179833.2	26.. 51	2102570.5	21748545.0
7649964.4	101529873.8	27.. 52	1959285.2	19789259.8
7148439.8	94381434.0	28.. 53	1823346.3	17965913.5
6695269.6	87686164.4	29.. 54	1693617.0	16272296.5
6279627.3	81406537.1	30..	1570131.5	14702165.0
5892679.4	75513857.7	31.. 56	1453725.5	13248439.5
5526069.7	69987768.0	32.. 57	1344333.3	11904106.2
5179783.6	64807984.4	33.. 58	1240863.6	10663242.6
4852761.8	59955222.6	34.. 59	1141578.1	9521664.5
4541555.4	55413667.2	35.. 60	1045750.2	8475914.3
4242613.4	51171053.8	36.. 61	952725.6	7523188.7
3958192.6	47212861.2	37..	865656.0	6657532.7
3689837.1	43523024.1	38.. 63	784979.2	5872553.5
3436777.2	40084246.9	39.. 64	710974.9	5161578.6

Preparatory Table for finding the Values of Annuties, &c. on Two Juint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Five Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
40 & 65	642467.0	4519111.6	60 & 85	25628.83	67594.33
41..66	579103.0	3940008.6	61.. 86	19455.94	48138.39
42..67	520811.4	3419197.2	62.. 87	14409.95	33728.44
43..68	467181.3	2952015.9	63.. 88	10354.07	23374.37
44..69	418080.5	2533935.4	64.. 89	7399.03	15975.34
45..70	373015.4	2160920.0	65.. 90	5303.47	10666.87
46..71	331916.6	1829003.4	66.. 91	3584.76	7082.105
47..72	293100.1	1535903.3	67.. 92	2334.976	4747.129
48..73	256325.6	1279577.7	68.. 93	1530.053	3217.076
49..74	221914.5	1057663.2	69.. 94	1029.264	2187.812
50..75	189659.1	868004.1	70.. 95	699.085	1488.727
51..76	161181.6	706822.5	71.. 96	484.080	1004.647
52..77	135731.4	571091.1	72.. 97	339.572	665.075
53..78	113626.8	457464.3	73.. 98	234.398	430.677
54..79	94882.5	362581.80	74.. 99	161.698	268.9791
55..80	78318.33	284263.47	75..100	114.6376	154.3415
56..81	64335.74	219927.73	76..101	76.8054	77.5361
57..82	52064.83	167862.90	77..102	46.8684	30.6677
58..83	41718.97	126143.93	78..103	23.9047	6.7630
59..84	32920.77	93223.16			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 26	16413209.	162117613.2	25 & 51	2118062.3	21983565.2
1..27	13128470.9	148989142.3	26.. 52	1973828.5	20009736.7
2..28	11406178.3	137582964.0	27.. 53	1837620.9	18172115.6
3..29	10069457.3	127513506.7	28.. 54	1708478.5	16463637.3
4..30	9135409.9	118378096.8	29.. 55	1585715.9	14877921.4
5..31	8365119.6	110012977.2	30.. 56	1468562.0	13409359.4
6..32	7745095.8	102267881.4	31.. 57	1358195.0	12051164.4
7..33	7211874.5	95056006.9	32.. 58	1253562.5	10797601.9
8..34	6739609.1	88316397.8	33.. 59	1153168.8	9644433.1
9..35	6311705.8	82004692.0	34.. 60	1056476.9	8587956.2
10..36	5919251.9	76085440.1	35.. 61	962599.3	7625356.9
11..37	5552856.7	70532583.4	36.. 62	874887.8	6750469.1
12..38	5205812.7	65326770.7	37.. 63	793593.8	5956875.3
13..39	4878040.6	60448730.1	38.. 64	719003.8	5237871.5
14..40	4566786.3	55881943.8	39.. 65	650189.1	4587682.4
15..41	4269040.9	51612902.9	40.. 66	586733.4	4000949.0
16..42	3984924.4	47627978.5	41.. 67	528085.9	3472863.1
17..43	3715527.3	43912451.2	42.. 68	473993.7	2998869.4
18..44	3462887.3	40449563.9	43.. 69	424267.3	2574602.1
19..45	3226562.7	37223001.2	44.. 70	378618.1	2195984.0
20..46	3006185.5	34216815.7	45.. 71	336905.6	1859078.4
21..47	2800698.2	31416117.5	46.. 72	297508.1	1561570.3
22..48	2610124.2	28805993.3	47.. 73	260125.3	1301445.0
23..49	2434048.3	26371945.0	48.. 74	225050.7	1076394.3
24..50	2270317.5	24101627.5	49.. 75	192290.3	884104.0

TABLE XXXI.

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Preparatory Table for finding the Values of 'Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Six Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
50 & 76	163373.8	720730.2	64 & 90	5528.34	11188.42
51.. 77	137699.6	583030.6	65.. 91	3738.36	7450.057
52.. 78	115380.7	467649.9	66.. 92	2438.621	5011.436
53.. 79	96439.8	371210.11	67.. 93	1601.126	3410.310
54.. 80	79664.35	291545.76	68.. 94	1079.402	2330.908
55.. 81	65509.85	226035.91	69.. 95	735.189	1595.719
56.. 82	53073.22	172962.69	70.. 96	510.443	1085.276
57.. 83	42609.37	130353.32	71.. 97	360.805	724.471
58.. 84	33737.42	96615.90	72.. 98	251.536	472.935
59.. 85	26374.55	70241.35	73.. 99	175.400	297.5346
60.. 86	20130.07	50111.28	74..100	125.9987	171.5359
61.. 87	14944.75	35166.53	75..101	84.9167	86.6192
62.. 88	10756.46	24410.07	76..102	52.2485	34.3707
63.. 89	7693.31	16716.76	77..103	26.7819	7.5888

Difference of Age Twenty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 27	15516453.	152213857.9	30 & 57	1372056.6	12196616.4
1.. 28	12406180.1	139807677.8	31.. 58	1266488.2	10930128.2
2.. 29	10768532.9	129039144.9	32.. 59	1164970.2	9765158.0
3.. 30	9495709.2	119543435.7	33.. 60	1067203.5	8697954.5
4.. 31	8612491.9	110930943.8	34.. 61	972473.1	7725481.4
5.. 32	7885472.8	103045471.0	35.. 62	883954.8	6841526.6
6.. 33	7301558.0	95743913.0	36.. 63	802057.2	6039469.4
7.. 34	6799415.9	88944497.1	37.. 64	726894.3	5312575.1
8.. 35	6353505.2	82590991.9	38.. 65	657531.7	4655043.4
9.. 36	5949489.5	76641502.4	39.. 66	593785.8	4061257.6
10.. 37	5577896.8	71063605.6	40.. 67	535044.1	3526213.5
11.. 38	5231028.3	65832577.3	41.. 68	480614.3	3045599.2
12.. 39	4902553.4	60930023.9	42.. 69	430454.0	2615145.2
13.. 40	4590575.3	56339448.6	43.. 70	384220.9	2230924.3
14.. 41	4292757.8	52046690.8	44.. 71	341966.0	1888958.3
15.. 42	4009746.6	48036944.2	45.. 72	301980.0	1586978.3
16.. 43	3740620.1	44296324.1	46.. 73	264037.3	1322941.0
17.. 44	3486997.4	40809326.7	47.. 74	228385.7	1094555.3
18.. 45	3249184.9	37560141.8	48.. 75	195007.8	899547.5
19.. 46	3027411.7	34532730.1	49.. 76	165640.3	733907.2
20.. 47	2820613.8	31712116.3	50.. 77	139572.4	594334.8
21.. 48	2628379.8	29083736.5	51.. 78	117053.6	477281.2
22.. 49	2451192.4	26632544.1	52.. 79	97928.4	379352.80
23.. 50	2286421.5	24346122.6	53.. 80	80971.90	298380.90
24.. 51	2133194.0	22212928.6	54.. 81	66635.74	231745.16
25.. 52	1988371.7	20224556.9	55.. 82	54041.80	177703.36
26.. 53	1851261.1	18373295.8	56.. 83	43434.64	134268.72
27.. 54	1721853.9	16651441.9	57.. 84	34457.47	99811.25
28.. 55	1599630.6	15051811.3	58.. 85	27028.81	72782.44
29.. 56	1483138.3	13568673.0	59.. 86	20715.79	52066.65

3 E

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 5 per Cent.)

Difference of Age Twenty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
60 & 87	15462.58	36604.07	69 & 96	536.805	1162.073
61.. 88	11155.67 *	25448.40	70.. 97	380.453	781.820
62.. 89	7992.28	17456.12	71.. 98	267.264	514.356
63.. 90	5748.20	11707.93	72.. 99	188.223	326.1327
64.. 91	3893.19	7814.726	73..100	136.6755	189.4571
65.. 92	2543.110	5271.616	74..101	93.3323	96.1249
66.. 93	1672.196	3599.420	75..102	57.7664	38.3585
67.. 94	1129.541	2469.879	76..103	29.8563	8.5022
68.. 95	771.001	1699.878			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.'
0 & 28	14662782.	142841598.4	38 & 66	600491.?	4120512.2
1.. 29	11712631.0	131128967.4	39.. 67	541475.1	3579037.1
2.. 30	10154952.2	120974015.2	40.. 68	406940.?	3092090.2
3.. 31	8952167.3	112021847.9	41.. 69	436465.4	2655623.8
4.. 32	8118660.9	103903187.0	42.. 70	389823.5	2265800.3
5.. 33	7433896.1	96469290.9	43.. 71	347095.?	1918774.0
6.. 34	6883970.4	89585320.5	44.. 72	306515.7	1612258.3
7.. 35	6409885.8	83175434.7	45.. 73	260000.?	1344258.1
8.. 36	5988890.2	77186544.5	46.. 74	211020.?	1112431.7
9.. 37	5606390.7	71580153.8	47.. 75	197897.7	914534.?
10.. 38	5254617.2	66325536.6	48.. 76	167981.2	746559.8
11.. 39	4926300.1	61399236.5	49.. 77	141508.7	605044.1
12.. 40	4613643.6	56785592.9	50.. 78	118645.7	486398.4
13.. 41	4315119.4	52470473.5	51.. 79	99348.3	367050.?
14.. 42	4032022.9	48438450.6	52.. 80	82221.76	304829.30
15.. 43	3763920.6	44674530.0	53.. 81	67729.45	237098.85
16.. 44	3510546.8	41163983.2	54.. 82	54970.59	182128.27
17.. 45	3271807.1	37892176.1	55.. 83	44227.31	137900.96
18.. 46	3046637.4	34843538.7	56.. 84	35124.86	102776.10
19.. 47	2840529.5	32003009.2	57.. 85	27605.69	75170.41
20.. 48	2647070.1	29355939.1	58.. 86	21229.67	58815.74
21.. 49	2468336.3	26887602.8	59.. 87	15912.49	38029.25
22.. 50	2302525.9	24585076.9	60.. 88	11542.19	26486.06
23.. 51	2148325.5	22436751.4	61.. 89	8288.90	18197.16
24.. 52	2002576.8	20434174.6	62.. 90	5971.59	12225.57
25.. 53	1864901.3	18569273.3	63.. 91	4048.03	8177.535
26.. 54	1734634.8	16834638.5	64.. 92	2648.441	5529.094
27.. 55	1612153.9	15222484.6	65.. 93	1743.845	3785.249
28.. 56	1496152.8	13726331.8	66.. 94	1179.678	2605.571
29.. 57	1385674.8	12340657.0	67.. 95	806.816	1799.755
30.. 58	1279413.8	11061243.2	68.. 96	562.954	1235.801
31.. 59	1176982.4	9884260.8	69.. 97	400.102	835.699
32.. 60	1078125.3	8806135.5	70.. 98	281.818	551.481
33.. 61	982346.7	7823788.8	71.. 99	199.993	353.877
34.. 62	893022.0	6930766.8	72..100	146.6677	207.2200
35.. 63	810369.5	6120397.3	73..101	101.2410	105.9791
36.. 64	734646.3	5385751.0	74..102	63.4914	42.4876
37.. 65	664747.6	4721003.4	75..103	33.0094	9.4781

TABLE XXXI. 787

...atory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Twenty-Nine Years.

D.	N.	Ages.	D.	N.
13843081.	133981871.3	38 & 67	547569.9	3630941.2
11045256.5	122936614.8	39.. 68	492799.9	3138141.3
9573674.7	113362940.1	40.. 69	442217.4	2695923.9
8438859.7	104924080.4	41.. 70	395268.6	2300655.3
7653730.3	97270350.1	42.. 71	352086.7	1948568.6
7006739.7	90261610.4	43.. 72	311051.4	1637517.2
6489596.3	83772014.1	44.. 73	272031.5	1365485.7
6042035.1	77729979.0	45.. 74	235305.1	1130180.6
5643519.1	72086459.9	46.. 75	200673.9	929306.7
5281459.6		47.. 76	170470.5	758835.2
4948514.8	61856485.5	48.. 77	143508.4	615327.8
4635990.9	57220494.6	49..	120291.6	495036.2
4336803.4	52883691.2	50..	100699.4	394336.79
4053026.4	48830664.8	51.. 80	83413.93	310922.86
3784831.2	45045833.6	52..	68774.90	242147.96
3532414.2	41513419.4	53.. 82	55872.83	186275.13
3293903.3	38219516.1	54.. 83	44987.43	141287.70
3069863.4	35149652.7	55.. 84	35765.88	105521.62
2860445.1	32289207.6	56.. 85	28140.36	77381.46
2665760.4	29623447.2	57.. 86	21682.78	55698.68
2485888.6	27137558.6	58.. 87	16307.23	39391.45
2318630.1	24818928.5	59.. 88	11878.03	27513.42
2163457.3	22655471.2	60.. 89	8576.10	18937.32
2016781.8	20638689.4	61.. 90	6193.23	12744.09
1878224.3	18760465.1	62..	4205.33	8538.762
1747415.6	17013049.5	63.. 92	2753.771	5784.991
1624120.4	15388929.1	64.. 93	1816.072	3968.919
1507866.0	13881063.1	65.. 94	1230.226	2738.693
1397834.2	12483228.9	.. 95	842.627	1896.066
1292113.7	11191116.2	67.. 96	589.104	1306.962
1188994.6	10002121.6	68.. 97	419.592	887.370
1089241.9	8912879.7	69.. 98	296.373	690.997
992400.1	7920479.6	70..	210.884	380.1130
902089.0	7016390.6	71..100	155.8388	224.2742
818681.7	6199708.9	72..101	108.6428	115.6314
742259.8	5457449.1	73..102	68.8715	
671836.8	4785612.3	74..103	36.2808	10.4791
607081.2	4178531.1			

Difference of Age Thirty Years.

D.	N.	Ages.	D.	N.
13054316.	125618714.1	8 & 38	5816436.1	67274948.6
10413017.2	115205596.9	9.. 39	4973793.6	62201155.0
9024730.5		10.. 40	4656896.5	57644258.5
7955592.2	98225374.2	11.. 41	4357809.8	53286448.7
7216001.3	91009372.9	12..	4073393.4	49213055.3
6607217.7	84402155.2	13.. 43		
6117171.2	78284984.0	14.. 44	3552038.7	41856469.7
5693599.3	72591384.7	15.. 45	3314421.2	38542048.5

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
16 & 46	3090595.7	35451452.8	45 & 75	203893.3	944000.0
17.. 47	2880360.8	32571092.0	46.. 76	173034.3	770965.7
18.. 48	2684450.7	29886641.3	47.. 77	145635.2	625330.5
19.. 49	2503440.9	27383200.4	48.. 78	121991.7	503338.8
20.. 50	2335117.8	25048082.6	49.. 79	102096.6	401242.17
21.. 51	2178588.8	22869493.8	50.. 80	84548.42	316693.75
22.. 52	2030987.0	20838506.8	51.. 81	69772.11	246921.64
23.. 53	1891547.2	18946959.6	52.. 82	56735.27	190186.37
24.. 54	1759899.3	17187060.3	53.. 83	45725.82	144460.55
25.. 55	1636087.0	15550973.3	54.. 84	36380.57	108079.98
26.. 56	1519058.4	14031914.9	55.. 85	28653.92	79426.06
27.. 57	1408777.6	12623137.3	56.. 86	22102.75	57323.31
28.. 58	1303451.0	11319686.3	57.. 87	16655.27	40668.04
29.. 59	1200796.0	10118890.3	58.. 88	12172.70	28495.34
30.. 60	1100358.6	9018531.7	59.. 89	8825.64	19669.70
31.. 61	1002632.9	8015898.8	60.. 90	6407.81	13261.89
32.. 62	911320.8	7104578.0	61.. 91	4351.43	8900.461
33.. 63	826994.0	6277584.0	62.. 92	2860.788	6039.673
34.. 64	749873.6	5527710.4	63.. 93	1888.299	4151.374
35.. 65	678799.5	4848910.9	64.. 94	1281.180	2870.194
36.. 66	613555.5	4235355.4	65.. 95	878.733	1991.461
37.. 67	553599.4	3681756.0	66.. 96	615.252	1376.209
38.. 68	498365.0	3183391.0	67.. 97	439.082	937.127
39.. 69	447532.7	2735858.3	68.. 98	310.810	626.317
40.. 70	400476.8	2335381.5	69.. 99	221.776	404.5407
41.. 71	357004.6	1978376.9	70..100	164.3254	240.2153
42.. 72	315587.3	1662789.6	71..101	115.4361	124.7793
43.. 73	276057.1	1386732.5	72..102	73.9065	50.8727
44.. 74	238839.2	1147893.3	73..103	39.3550	11.5177

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 31	12307076.	117726842.0	15 & 46	3109847.2	35748828.4
1.. 32	9815946.0	107910896.0	16.. 47	2899813.4	32849015.0
2.. 33	8507912.1	99402983.9	17.. 48	2703141.1	30145873.9
3.. 34	7500599.3	91902384.6	18.. 49	2520993.1	27624880.8
4.. 35	6802605.6	85099779.0	19.. 50	2351605.5	25273275.3
5.. 36	6228042.5	78871736.5	20.. 51	2194080.7	23079194.6
6.. 37	5764402.3	73107334.2	21.. 52	2045192.0	21034002.6
7.. 38	5363613.8	67743720.4	22.. 53	1904870.3	19129132.3
8.. 39	5006732.6	62736987.8	23.. 54	1772383.1	17356749.2
9.. 40	4680685.5	58056302.3	24.. 55	1647775.5	15708973.7
10.. 41	4377460.9	53678841.4	25.. 56	1530251.0	14178722.7
11.. 42	4093123.9	49585717.5	26.. 57	1419234.8	12759487.9
12.. 43	3823665.4	45762052.1	27.. 58	1313655.5	11445832.4
13.. 44	3570541.8	42191510.3	28.. 59	1211333.0	10234499.4
14.. 45	3332834.7	38858675.6	29.. 60	1111280.3	9123219.1

TABLE XXXI 789

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-One Years—*continued.*

Ages	D.	N.	Ages	D.	N.
30 & 61	1012865.6	8110353.5	52 & 83	46431.62	147453.61
31.. 62	920717.6	7189635.9	53.. 84	36977.69	110475.92
32.. 63	835457.3	6354178.6	54.. 85	29146.38	81329.54
33.. 64	757487.2	5596691.4	55.. 86	22506.12	58823.42
34.. 65	685762.2	4910929.2	56.. 87	16977.85	41845.57
35.. 66	619914.1	4291015.1	57.. 88	12432.50	29413.07
36.. 67	559503.2	3731511.9	58.. 89	9044.57	20368.50
37.. 68	503834.2	3227677.7	59.. 90	6594 26	13774.24
38.. 69	452586.5	2775091.2	60.. 91	4512.53	9261.705
39.. 70	405290.4	2369800.8	61.. 92	2966.963	6294.742
40.. 71	361708.6	2008092.2	62.. 93	1961.682	4333.060
41.. 72	319995.3	1688096.9	63.. 94	1332.133	3000.927
42.. 73	280082.6	1408014.3	64.. 95	915.127	2085.800
43.. 74	242373.5	1165640.8	65.. 96	641.614	1444.166
44.. 75	206955.7	958685.1	66.. 97	458.573	985.613
45.. 76	175635.2	783049.9	67.. 98	325.247	660.366
46.. 77	147825.5	635224.4	68.. 99	232.578	427.7884
47.. 78	123799.5	511424.9	69..100	172.8120	254.9764
48.. 79	103539.3	407885.55	70..101	121.7225	133.2539
49.. 80	85721.37	322164.18	71..102	78.5279	54.7260
50.. 81	70721.05	251443.13	72..103	42.2323	12.4937
51.. 82	57557.90	193885.23			

Difference of Age Thirty-Two Years.

Ages	D.	N.	Ages	D.	N.
0 & 32	11601402.	110280454.1	22 & 54	1784866.7	17522476.4
1.. 33	9253817.1	101026637.0	23.. 55	1659463.8	15863012.6
2.. 34	8021331.1	93005305.9	24.. 56	1541183.2	14321829.4
3.. 35	7070899.2	85934406.7	25.. 57	1429691.7	12892137.7
4.. 36	6412217.4	79522189.3	26.. 58	1323406.5	11568731.2
5.. 37	5868880.0	73653309.3	27.. 59	1220816.3	10347914.9
6.. 38	5430313.3	68222996.0	28.. 60	1121031.8	9226883.1
7.. 39	5051162.0	63171834.0	29.. 61	1022918.9	8203964.2
8.. 40	4711683.5	58460150.5	30.. 62	930114.3	7273849.9
9.. 41	4399822.6	54060327.9	31.. 63	844071.9	6429778.0
10.. 42	4111581.5	49948746.4	32.. 64	765239.3	5664538.7
11.. 43	3842186.2	46106560.2	33.. 65	692725.0	4971813.7
12.. 44	3588484.2	42518076.0	34.. 66	626272.9	4345540.8
13.. 45	3350195.8	39167880.2	35.. 67	565301.7	3780239.1
14.. 46	3127124.1	36040756.1	36.. 68	509207.4	3271031.7
15.. 47	2917876.4	33122879.7	37.. 69	457553.4	2813478.3
16.. 48	2721396.8	30401482.9	38.. 70	409867.2	2403611.1
17.. 49	2538545.4	27862937.5	39.. 71	366056.3	2037554.8
18.. 50	2368093.2	25494844.3	40.. 72	324211.7	1713343.1
19.. 51	2209572.6	23285271.7	41.. 73	283994.7	1429348.4
20.. 52	2059735.3	21225536.4	42.. 74	245907.9	1183440.5
21.. 53	1918193.3	19307343,1	43.. 75	210018.3	973422.2

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives (Carlisle 5 per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 & 76	178273.2	795149.0	58 & 90	6757.85	14263.31
45.. 77	150047.4	645101.6	59.. 91	4643.83	9619.479
46.. 78	125661.4	519440.2	60.. 92	3069.765	6549.714
47.. 79	105073.7	414366.49	61.. 93	2034.487	4515.227
48.. 80	86933.78	327433.71	62.. 94	1383.902	3131.325
49.. 81	71702.18	255731.53	63.. 95	951.524	2179.801
50.. 82	58340.74	197390.79	64.. 96	668.190	1511.611
51.. 83	47104.86	150285.93	65.. 97	478.222	1033.389
52.. 84	37548.47	112737.46	66.. 98	339.683	693.706
53.. 85	29624.77	83112.69	67.. 99	243.382	450.3235
54.. 86	22892.92	60219.77	68..100	181.2301	269.0934
55.. 87	17267.69	42932.08	69..101	128.0089	141.0845
56.. 88	12673.30	30.58.78	70..102	82.8044	58.2801
57.. 89	9237.62	21021.16	71..103	44.8730	13.4071

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 33	10937025.	103253312.9	30 & 63	852686.3	6504638.4
1.. 34	8724576.7	94528736.2	31.. 64	773129.8	5731508.6
2.. 35	7561798.8	86966937.4	32.. 65	699814.2	5031694.4
3.. 36	6665114.4	80301823.0	33.. 66	632631.5	4399062.9
4.. 37	6042433.7	74259389.3	34.. 67	571100.4	3827962.5
5.. 38	5528735.6	68730653.7	35.. 68	514484.6	3313477.9
6.. 39	5113975.9	63616677.8	36.. 69	462433.0	2851044.9
7.. 40	4753494.6	58863183.2	37.. 70	414365.2	2436679.7
8.. 41	4428960.5	54434222.7	38.. 71	370190.1	2066489.6
9.. 42	4132584.8	50301637.9	39.. 72	328108.6	1738381.0
10.. 43	3859512.2	46442125.7	40.. 73	287736.7	1450644.3
11.. 44	3605865.9	42836259.8	41.. 74	249342.6	1201301.7
12.. 45	3367031.0	39469228.8	42.. 75	213080.7	988221.0
13.. 46	3143413.8	36325815.0	43.. 76	180911.3	807309.7
14.. 47	2934086.8	33391728.2	44.. 77	152301.1	655008.6
15.. 48	2738348.4	30653379.8	45.. 78	127550.2	527458.4
16.. 49	2555689.5	28097690.3	46.. 79	106654.0	420804.44
17.. 50	2384580.8	25713109.5	47.. 80	88221.10	332583.34
18.. 51	2225064.4	23488045.1	48.. 81	72715.47	259867.87
19.. 52	2074278.6	21413766.5	49.. 82	59150.10	200717.77
20.. 53	1931833.5	19481933.0	50.. 83	47745.52	152972.25
21.. 54	1797350.3	17684582.7	51.. 84	38092.91	114879.34
22.. 55	1671152.1	16013430.6	52.. 85	30082.04	84797.30
23.. 56	1552115.5	14461315.1	53.. 86	23268.68	61528.62
24.. 57	1439905.6	13021409.5	54.. 87	17584.81	43943.81
25.. 58	1333157.3	11688252.2	55.. 88	12904.58	31039.23
26.. 59	1229878.0	10458374.2	56.. 89	9416.53	21622.70
27.. 60	1129808.2	9328566.0	57.. 90	6902.08	14720.62
28.. 61	1031895.3	8296670.9	58.. 91	4759.04	9961.580
29.. 62	939346.2	7357324.7	59.. 92	3159.085	6802.495

TABLE XXXI   ·731

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-Three Years—*continued.*

D.	N.	Ages.	D.	N.
2104.979	4697.516	66 & 99	254.185	472.5358
1435.264	3262.252	67..100	189.6483	282.8875
988.501	2273.751	68..101	134.2444	148.6431
694.762	1578.989	69..102	87.0807	61.5624
498.029	1080.960	70..103	47.3169	14.2455
354.239	726.721			

Difference of Age Thirty-Four Years.

D.	N.	Ages.	D.	N.
10311520.	96620571.5	35 & 69	467225.6	2887817.0
8224756.4	88395815.1	36.. 70	418784.3	2469032.7
7127842.2	81267972.9	37.. 71	374252.6	2094780.1
6280746.3	74987226.6	38.. 72	331813.9	1762966.2
5692230.7	69294995.9	39.. 73	291195.2	1471771.0
5206664.7	64088331.2	40.. 74	252628.1	1219142.9
4812607.0	59275724.2	41.. 75	216057.1	1003085.8
4468262.8	54807461.4	42.. 76	183549.3	819536.5
4159953.0	50647508.4	43.. 77	154554.9	664981.6
3879227.9	46768280.5	44.. 78	129465.9	535515.7
3622126.2	43146154.3	45.. 79	108257.1	427258.55
3383340.0	39762814.3	46.. 80	89547.88	337710.67
3159209.8	36603604.5	47.. 81	73793.09	263917.58
2949370.9	33654233.6	48.. 82	59986.01	203931.57
2753561.5	30900672.1	49.. 83	48407.89	155523.68
2571609.0	28329063.1	50.. 84	38611.00	116912.68
2400685.0	25928378.1	51.. 85	30518.22	86394.46
2240556.3	23687821.8	52.. 86	23627.83	62766.63
2086821.9	21598999.9	53.. 87	17873.42	44893.21
1945473.6	19653526.3	54.. 88	13126.36	31766.85
1810131.2	17843395.1	55.. 89	9588.38	22178.47
1682840.3	16160554.8	56.. 90	7035.76	15142.71
1563047.7	14597507.1	57.. 91	4860.61	10282.097
1450119.4	13147387.7	58.. 92	3237.452	7044.645
1342681.6	11804706.1	59.. 93	2166.228	4678.417
1238939.9	10565766.2	60.. 94	1484.994	3393.423
1138194.4	9427571.8	61.. 95	1025.188	2368.235
1039973.6	8387598.2	62.. 96	721.763	1646.472
947589.0	7440009.2	63.. 97	517.835	1128.637
861149.6	6578859.6	64.. 98	368.911	759.726
781020.3	5797839.3	65.. 99	265.075	494.6511
707030.1	5090809.2	66..100	198.0665	296.5846
639105.9	4451703.3	67..101	140.4803	156.1043
576898.8	3874804.5	68..102	91.3226	64.7817
519761.9	3355042.6	69..103	49.7604	15.0213

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint
(Carlisle 5 per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 35	9720785.	90360304.3	35 & 70	423121.4	250069
1.. 36	7752753.9	82607550.4	36.. 71	378243.9	212244
2.. 37	6716769.4	75890761.0	37.. 72	335455.3	178699
3.. 38	5916731.5	69974029.5	38.. 73	294483.7	149251
4.. 39	5360635.8	64613393.7	39.. 74	255664.5	123684
5.. 40	4899833.7	59713560.0	40.. 75	218903.9	101794
6.. 41	4523528.0	55189732.0	41.. 76	186113.1	83189
7.. 42	4196868.0	50992864.0	42.. 77	156808.6	67502
8.. 43	3904918.2	47087945.8	43.. 78	131381.7	54363
9.. 44	3640629.3	43447316.5	44.. 79	109883.1	43378
10.. 45	3398596.9	40048719.6	45.. 80	90693.88	34286
11.. 46	3174512.2	36874207.4	46.. 81	74902.88	26795
12.. 47	2964191.9	33910015.5	47.. 82	60874.98	20706
13.. 48	2767905.1	31142110.4	48.. 83	49092.00	15796
14.. 49	2585895.8	28556214.6	49.. 84	39146.66	11884
15.. 50	2415639-1	26140575.5	50.. 85	30933.29	8791
16.. 51	2255667.9	23984887.6	51.. 86	23970.43	6394
17.. 52	2103365.2	21781522.4	52.. 87	18149.31	4575
18.. 53	1959113.9	19822408.5	53.. 88	13341.81	3245
19.. 54	1822912.1	17999496.4	54.. 89	9753.16	2265
20.. 55	1694807.0	16304689.4	55.. 90	7164.15	1553
21.. 56	1573979.8	14730709.6	56.. 91	4954.76	1057
22.. 57	1460331.2	13270376.4	57.. 92	3306.548	727
23.. 58	1352205.8	11918170.6	58.. 93	2219.964	505
24.. 59	1247791.0	10670379.6	59.. 94	1528.202	352
25.. 60	1146580.7	9523798.9	60.. 95	1060.709	246
26.. 61	1047693.0	8476105.9	61.. 96	748.551	171
27.. 62	955007.6	7521098.3	62.. 97	537.960	117
28.. 63	869706.3	6652392.0	63.. 98	383.583	79
29.. 64	788772.3	5863619.7	64.. 99	276.054	51
30.. 65	714246.0	5149373.7	65..100	206.5531	31
31.. 66	645695.9	4503677.8	66..101	146.7158	16
32.. 67	582802.7	3920875.1	67..102	95.5647	6
33.. 68	525039.1	3395836.0	68..103	52.1844	1
34.. 69	472018.1	2923817.9			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N
0 & 36	9162929.	84451627.1	10 & 46	3188827.4	37137
1.. 37	7305663.3	77145963.8	11.. 47	2978549.7	34159
2.. 38	6327502.7	70818461.1	12.. 48	2781814.3	31377
3.. 39	5572059.3	65246402.8	13.. 49	2599366.0	28777
4.. 40	5044730.9	60201671.9	14.. 50	2429059.3	26348
5.. 41	4605820.7	55595851.2	15.. 51	2269738.7	24079
6.. 42	4249058.4	51346792.8	16.. 52	2117570.2	21961
7.. 43	3939570.2	47407222.6	17.. 53	1972754.0	19988
8.. 44	3664739.5	43742483.1	18.. 54	1835693.0	18153
9.. 45	3415958.1	40326525.0	19.. 55	1706773.6	16446

TABLE XXXI. 793

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-Six Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 & 56	1585172.4	14861206.4	44 & 80	92259.10	348056.09
21.. 57	1470547.0	13390659.4	45.. 81	76028.75	272027.34
22.. 58	1361729.9	12028929.5	46.. 82	61790.50	210236.84
23.. 59	1256642.1	10772287.4	47.. 83	49819.53	160417.31
24.. 60	1154772.0	9617515.4	48.. 84	39699.87	120717.44
25.. 61	1055412.4	8562103.0	49.. 85	31362.43	89355.01
26.. 62	962096.3	7600006.7	50.. 86	24296.44	65058.57
27.. 63	875507.2	6724499.5	51.. 87	18412.47	46646.10
28.. 64	795693.8	5928805.7	52.. 88	13547.75	33098.35
29.. 65	721335.2	5207470.5	53.. 89	9913.25	23185.10
30.. 66	652285.7	4555184.8	54.. 90	7287.28	15897.82
31.. 67	588812.1	3966372.7	55.. 91	5045.17	10852.648
32.. 68	530412.4	3435960.3	56.. 92	3370.590	7482.058
33.. 69	476810.6	2959149.7	57.. 93	2267.346	5214.712
34.. 70	427464.5	2531685.2	58.. 94	1566.112	3648.600
35.. 71	382163.8	2149521.4	59.. 95	1091.573	2557.027
36.. 72	339032.8	1810488.6	60.. 96	774.488	1782.539
37.. 73	297715.4	1512773.2	61.. 97	557.925	1224.614
38.. 74	258551.8	1254221.4	62.. 98	398.489	826.125
39.. 75	221535.1	1032686.3	63.. 99	287.033	539.0917
40.. 76	188565.4	844120.9	64..100	215.1081	323.9836
41.. 77	158999.0	685121.9	65..101	153.0023	170.9813
42.. 78	133297.6	551824.3	66..102	99.8065	71.1748
43.. 79	111509.1	440315.19	67..103	54.6084	16.5664

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	8634515.	78876132.3	21 & 58	1371254.0	12137244.0
1.. 38	6882247.1	71993885.2	22.. 59	1265493.2	10871750.8
2.. 39	5958900.5	66034984.7	23.. 60	1162963.3	9708787.5
3.. 40	5243694.3	60791290.4	24.. 61	1062952.4	8645835.1
4.. 41	4742023.5	56049266.9	25.. 62	969185.1	7676650.0
5.. 42	4326070.9	51723196.0	26.. 63	882005.9	6794644.1
6.. 43	3988560.8	47734635.2	27.. 64	801923.1	5992721.0
7.. 44	3697260.1	44037375.1	28.. 65	727665.0	5265056.0
8.. 45	3438580.4	40598794.7	29.. 66	658760.0	4606296.0
9.. 46	3205117.1	37393677.6	30.. 67	594821.4	4011474.6
10.. 47	2991981.2	34401696.4	31.. 68	535881.6	3475593.0
11.. 48	2795288.7	31606407.7	32.. 69	481690.1	2993902.9
12.. 49	2612428.2	28993979.5	33.. 70	431804.6	2562098.3
13.. 50	2441712.6	26552266.9	34.. 71	386083.8	2176014.5
14.. 51	2282348.4	24269918.5	35.. 72	342546.4	1833468.1
15.. 52	2130760.7	22139157.8	36.. 73	300890.3	1532577.8
16.. 53	1936077.0	20153080.8	37.. 74	261389.2	1271188.6
17.. 54	1848473.8	18304607.0	38.. 75	224036.8	1047151.8
18.. 55	1718740.1	16585866.9	39.. 76	190831.9	856319.9
19.. 56	1596364.9	14989502.0	40.. 77	161093.9	695226.0
20.. 57	1481004.0	13508498.0	41.. 78	135159.5	560066.5

TABLE XXXI.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
42 & 79	113135.1	446931.40	55 & 92	3432.103	7676.647
43.. 80	93624.35	353307.05	56.. 93	2311.260	5365.387
44.. 81	77170.71	276136.34	57.. 94	1599.537	3765.850
45.. 82	62719.29	213417.06	58.. 95	1118.651	2647.199
46.. 83	50568.78	162848.28	59.. 96	797.022	1850.177
47.. 84	40288.22	122560.06	60.. 97	677.257	1272.920
48.. 85	31805.65	90754.41	61.. 98	413.278	859.642
49.. 86	24633.51	66140.90	62.. 99	258.188	561.4541
50.. 87	18662.90	47458.00	63..100	223.6632	337.7909
51.. 88	13744.19	33713.81	64..101	159.3394	178.4514
52.. 89	10066.27	23647.54	65..102	104.0832	74.3683
53.. 90	7406.90	16240.64	66..103	57.0323	17.3304
54.. 91	5131.89	11108.750			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 38	9134007.	73616194.2	33 & 71	390003.7	2202011.0
1.. 39	6481328.8	67134865.4	34.. 72	346060.0	1855951.4
2.. 40	5607739.6	61527125.8	35.. 73	304008.7	1551942.3
3.. 41	4929048.1	56598077.7	36.. 74	264176.8	1287765.5
4.. 42	4454001.0	52144076.7	37.. 75	226495.4	1061270.1
5.. 43	4060057.0	48083224.7	38.. 76	192986.9	868283.2
6.. 44	3743237.6	44339987.1	39.. 77	163030.3	705252.9
7.. 45	3469094.1	40870893.0	40.. 78	136940.4	568312.5
8.. 46	3226343.0	37644550.0	41.. 79	114715.5	453596.96
9.. 47	3007265.3	34637284.7	42.. 80	94989.08	358607.96
10.. 48	2807893.8	31829390.9	43.. 81	78312.66	280294.72
11.. 49	2625082.1	29204308.8	44.. 82	63661.32	216633.40
12.. 50	2453982.6	26750326.2	45.. 83	51328.88	165304.52
13.. 51	2294237.5	24456088.7	46.. 84	40894.12	124410.40
14.. 52	2142598.3	22313490.4	47.. 85	32276.99	92133.41
15.. 53	1998448.4	20315042.0	48.. 86	24981.63	67151.78
16.. 54	1860957.5	18454084.5	49.. 87	18921.60	48229.98
17.. 55	1730706.8	16723377.7	50.. 88	13931.13	34298.85
18.. 56	1607557.4	15115820.3	51.. 89	10212.22	24086.63
19.. 57	1491461.1	13624359.2	52.. 90	7521.22	16565.41
20.. 58	1381005.0	12243354.2	53.. 91	5216.13	11349.282
21.. 59	1274344.2	10969010.0	54.. 92	3491.099	7868.193
22.. 60	1171154.5	9797855.5	55.. 93	2353.440	5504.753
23.. 61	1070492.4	8727363.1	56.. 94	1630.518	3874.235
24.. 62	976109.1	7751254.0	57.. 95	1142.527	2731.708
25.. 63	943134.7	6862749.4	58.. 96	816.794	1914.914
26.. 64	807875.6	6054873.8	59.. 97	594.053	1320.861
27.. 65	733361.8	5321512.0	60.. 98	427.598	893.263
28.. 66	664540.6	4656971.4	61.. 99	309.256	584.0071
29.. 67	600725.3	4056246.1	62..100	232.3551	351.6520
30.. 68	541350.7	3514895.4	63..101	165.6764	185.9756
31.. 69	486657.0	3028238.4	64..102	105.7640	77.8816
32.. 70	436223.7	2592014.7	65..103	59.4761	18.1066

TABLE XXXI. 715

ory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-Nine Years.

D.	N.	Ages.	D.	N.
7660240.	68654865.6	33 & 72	349573.7	1878007.9
6099381.1	62555484.5	34.. 73	307127.0	1570880.9
5271249.0	57284235.5	35.. 74	266914.6	1303966.3
4629666.0	52654569.5	36.. 75	228910.9	1075055.4
4160939.0	48473630.5	37.. 76	195104.8	879950.6
3811082.3	44662548.2	38.. 77	164871.4	715079.2
3512234.3	41150313.9	39.. 78	138586.4	576492.8
3254973.3	37895340.6	40.. 79	116227.0	460265.75
3027180.9	34868159.7	41.. 80	96316.36	363949.39
2822237.5	32045922.2	42.. 81	79454.64	284494.75
2636919.7	29409002.5	43.. 82	64603.37	219891.38
2465869.0	26943133.5	44.. 83	52099.84	167791.54
2305766.3	24637367.2	45.. 84	41508.80	126282.74
2153759.3	22483607.9	46.. 85	32762.41	93520.33
2009550.9	20474057.0	47.. 86	25351.85	68168.48
1872549.5	18601507.5	48.. 87	19189.21	48979.27
1742395.2	16859112.3	49.. 88	14124.39	34854.88
1618749.9	15240362.4	50.. 89	10351.12	24503.76
1501918.0	13738444.4	51.. 90	7630.28	16873.48
1390756.0	12347688.4	52.. 91	5296.63	11576.851
1283406.1	11064282.3	53.. 92	3548.388	8028.463
1179345.8	9884936.5	54.. 93	2393.887	5634.576
1078032.3	8806904.2	55.. 94	1660.275	3974.301
983033.0	7823871.2	56.. 95	1164.656	2809.645
894852.1	6929019.1	57.. 96	834.226	1975.419
813828.0	6115191.1	58.. 97	608.790	1366.629
738805.2	5376385.9	59.. 98	440.040	926.589
669743.1	4706642.8	60.. 99	319.970	606.6193
605996.8	4100646.0	61..100	240.9786	365.6407
546723.9	3553922.1	62..101	172.1150	193.5257
491623.7	3062298.4	63..102	112.7050	80.8207
440721.7	2621576.7	64..103	61.9394	18.8813
393995.1	2227581.6			

Difference of Age Forty Years.

D.	N.	Ages.	D.	N.
7208818.	63978513.8	12 & 52	2164582.3	22649214.0
5733389.5	58245124.3	13.. 53	2020018.9	20629195.1
4951082.3	53294042.0	14.. 54	1882952.6	18746242.5
4345834.6	48948207.4	15.. 55	1753248.6	16992993.9
3923783.2	45024424.2	16.. 56	1629682.2	15363311.7
3575892.1	41448532.1	17.. 57	1512375.0	13850936.7
3295450.6	38153081.5	18.. 58	1400506.9	12450429.8
3054043.9	35099037.6	19.. 59	1292467.9	11157961.9
2840927.7	32258109.9	20.. 60	1187732.1	9970229.8
2650390.0	29607719.9	21.. 61	1085572.2	8884657.6
2476988.7	27130731.2	22.. 62	989956.9	7894700.7
2316934.9	24813796.3	23.. 63	901199.7	6993501.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Forty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
24 & 64	819642.2	6173858.8	44 & 84	42132.27	128180.21
25 .. 65	744248.9	5429609.9	45 .. 85	33254.87	94925.34
26 .. 66	674714.7	4754895.2	46 .. 86	25733.12	69192.22
27 .. 67	610741.0	4144154.2	47 .. 87	19473.58	49718.64
28 .. 68	551521.4	3592632.8	48 .. 88	14324.00	35394.64
29 .. 69	496503.2	3096129.6	49 .. 89	10494.72	24899.92
30 .. 70	445219.6	2650910.0	50 .. 90	7734.05	17165.87
31 .. 71	398057.7	2252852.3	51 .. 91	5373.43	11792.444
32 .. 72	353151.1	1899701.2	52 .. 92	3603.160	8169.284
33 .. 73	310245.3	1589455.9	53 .. 93	2433.179	5756.105
34 .. 74	269652.5	1319803.4	54 .. 94	1688.809	4067.296
35 .. 75	231283.3	1088520.1	55 .. 95	1185.910	2881.386
36 .. 76	197185.5	891334.6	56 .. 96	850.384	2031.003
37 .. 77	166680.6	724654.0	57 .. 97	621.784	1409.218
38 .. 78	140151.4	584502.6	58 .. 98	450.956	958.262
39 .. 79	117624.0	466878.58	59 .. 99	329.280	628.9819
40 .. 80	97585.45	369293.13	60 ..100	249.3283	379.6536
41 .. 81	80564.42	288728.71	61 ..101	178.5027	201.1509
42 .. 82	65545.42	223183.29	62 ..102	117.0848	84.0661
43 .. 83	52870.81	170312.48	63 ..103	64.4028	19.6633

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	6776255.	59576591.3	23 & 64	825456.2	6230919.8
1 .. 42	5385153.4	54191437.9	24 .. 65	749565.9	5481353.9
2 .. 43	4647545.7	49543892.2	25 .. 66	679685.9	4801668.0
3 .. 44	4078536.5	45465355.7	26 .. 67	615274.3	4186393.7
4 .. 45	3681637.9	41783717.8	27 .. 68	555839.2	3630554.5
5 .. 46	3355179.4	38428538.4	28 .. 69	500860.1	3129694.4
6 .. 47	3092022.6	35336515.8	29 .. 70	449638.7	2680055.7
7 .. 48	2866137.9	32470377.9	30 .. 71	402120.2	2277935.5
8 .. 49	2667942.2	29802435.7	31 .. 72	356792.5	1921143.0
9 .. 50	2489642.0	27312793.7	32 .. 73	313420.4	1607722.6
10 .. 51	2327382.8	24985410.9	33 .. 74	272390.3	1335332.3
11 .. 52	2175067.0	22810343.9	34 .. 75	233655.6	1101676.7
12 .. 53	2030169.8	20780174.1	35 .. 76	199229.0	902447.7
13 .. 54	1892761.1	18887413.0	36 .. 77	168458.3	733989.4
14 .. 55	1762988.9	17124424.1	37 .. 78	141689.6	592299.8
15 .. 56	1639833.5	15484590.6	38 .. 79	118952.3	473347.49
16 .. 57	1522588.9	13962001.7	39 .. 80	98758.41	374589.08
17 .. 58	1410257.8	12551743.9	40 .. 81	81625.96	292963.12
18 .. 59	1301523.7	11250214.2	41 .. 82	66460.94	226502.18
19 .. 60	1196118.4	10054095.8	42 .. 83	53641.77	172860.41
20 .. 61	1093291.7	8960804.1	43 .. 84	42755.73	130104.68
21 .. 62	996880.8	7963923.3	44 .. 85	33754.35	96350.33
22 .. 63	907547.3	7056376.0	45 .. 86	26119.92	70230.41

TABLE XXXI. 797

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Forty-One Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
46 & 87	19766.46	50463.95	55 & 96	865.903	2081.908
47.. 88	14536.27	35927.68	56.. 97	633.827	1448.081
48.. 89	10643.03	25284.65	57.. 98	460.580	987.501
49.. 90	7841.36	17443.29	58.. 99	337.449	650.0518
50.. 91	5446.52	11996.769	59..100	256.5831	393.4687
51.. 92	3655.402	8341.367	60..101	184.6876	208.7811
52.. 93	2470.737	5870.630	61..102	121.4303	87.3508
53.. 94	1716.528	4154.102	62..103	66.9055	20.4453
54.. 95	1206.291	2947.811			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	6364677.	55436702.1	31 & 73	316652.2	1625778.8
1.. 43	5055005.1	50381697.0	32.. 74	275178.0	1350600.8
2.. 44	4361690.5	46020006.5	33.. 75	236028.0	1114572.8
3.. 45	3826841.2	42193165.3	34.. 76	201272.7	913300.1
4.. 46	3454398.5	38738766.8	35.. 77	170204.1	743096.0
5.. 47	3148064.3	35590702.5	36.. 78	143200.6	599895.4
6.. 48	2901780.0	32688922.5	37.. 79	120257.8	479637.57
7.. 49	2691617.4	29997305.1	38.. 80	99873.66	379763.91
8.. 50	2506129.7	27491175.4	39.. 81	82607.08	297156.83
9.. 51	2339271.9	25151903.5	40.. 82	67336.65	229820.18
10.. 52	2184875.2	22967028.3	41.. 83	54391.02	175429.16
11.. 53	2040003.4	20927024.9	42.. 84	43379.20	132049.96
12.. 54	1902272.5	19024752.4	43.. 85	34253.85	97796.11
13.. 55	1772172.5	17252579.9	44.. 86	26512.24	71283.87
14.. 56	1648943.7	15603636.2	45.. 87	20063.57	51220.30
15.. 57	1532073.2	14071563.0	46.. 88	14754.89	36465.41
16.. 58	1419782.1	12651780.9	47.. 89	10800.76	25664.65
17.. 59	1310591.5	11341189.4	48.. 90	7952.17	17712.48
18.. 60	1204504.7	10136684.7	49.. 91	5522.07	12190.406
19.. 61	1101011.2	9035673.5	50.. 92	3705.120	8485.286
20.. 62	1003969.6	8031703.9	51.. 93	2506.562	5978.724
21.. 63	913894.7	7117809.2	52.. 94	1743.024	4235.700
22.. 64	831270.2	6286539.0	53.. 95	1226.092	3009.608
23.. 65	754882.8	5531656.2	54.. 96	880.786	2128.822
24.. 66	684541.5	4847114.7	55.. 97	645.394	1483.428
25.. 67	619807.7	4227307.0	56.. 98	469.501	1013.927
26.. 68	559965.0	3667342.0	57.. 99	344.651	669.2758
27.. 69	504781.3	3162560.7	58..100	262.9480	406.3278
28.. 70	453584.2	2708976.5	59..101	190.0614	216.2664
29.. 71	406111.5	2302865.0	60..102	125.6377	90.6287
30.. 72	360434.0	1942431.0	61..103	69.3888	21.2399

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Carlisle 5 per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	
0 & 43	5974477.	51546016.0	31 & 74	278015.4	136!
1.. 44	4744088.2	46801927.8	32.. 75	238443.5	112:
2.. 45	4092520.8	42709407.0	33.. 76	203316.2	92:
3.. 46	3590639.3	39118767.7	34.. 77	171949.9	75
4.. 47	3241158.4	35877609.3	35.. 78	144684.7	60:
5.. 48	2954373.6	32923235.7	36.. 79	121540.2	48:
6.. 49	2725089.0	30198146.7	37.. 80	100969.70	38
7.. 50	2528368.9	27669777.8	38.. 81	83539.94	30
8.. 51	2354763.8	25315014.0	39.. 82	68146.02	23:
9.. 52	2196036.3	23118977.7	40.. 83	55107.69	17:
10.. 53	2049202.6	21069775.1	41.. 84	43965.10	13.
11.. 54	1911486.6	19158288.5	42.. 85	34753.34	9!
12.. 55	1781078.0	17377210.5	43.. 86	26904.56	7:
13.. 56	1657533.3	15719677.2	44.. 87	20364.92	5
14.. 57	1540584.7	14179092.5	45.. 88	14976.67	3:
15.. 58	1428625.9	12750466.6	46.. 89	10963.20	2(
16.. 59	1319442.6	11431024.0	47.. 90	8070.01	1'
17.. 60	1212890.9	10218133.1	48.. 91	5600.12	1!
18.. 61	1108730.5	9109402.6	49.. 92	3756.522	
19.. 62	1011058.4	8098344.2	50.. 93	2540.653	
20.. 63	920393.4	7177950.8	51.. 94	1768.297	
21.. 64	837084.3	6340866.5	52.. 95	1245.017	
22.. 65	760199 8	5580666.7	53.. 96	895.242	
23.. 66	689397.2	4891269.5	54.. 97	656.486	
24.. 67	624235.7	4267033.8	55.. 98	478.069	
25.. 68	564090.9	3702942.9	56.. 99	351.327	
26.. 69	508528.2	3194414.7	57..100	268.5602	
27.. 70	457135.2	2737279.5	58..101	194.7762	
28.. 71	409675.1	2327604.4	59..102	129.2934	
29.. 72	364011.4	1963593.0	60..103	71.7931	
30.. 73	319883.8	1643709.2			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	
0 & 44	5607007.	47890330.5	14 & 58	1436562.7	12
1.. 45	4451320.2	43430010.3	15.. 59	1327661.5	11
2.. 46	3839920.8	39599089.5	16.. 60	1221082.2	10
3.. 47	3368989.3	36230100.2	17.. 61	1116450.1	9
4.. 48	3041740.0	33188360.2	18.. 62	1018147.1	8
5.. 49	2774480.2	30413880.0	19.. 63	926892.1	7
6.. 50	2559810.6	27854069.4	20.. 64	843036.7	6
7.. 51	2375659.8	25478409.6	21.. 65	765516.7	5
8.. 52	2210579.7	23267629.9	22.. 66	694253.0	4
9.. 53	2059670.7	21208159.2	23.. 67	628663.7	4
10.. 54	1920106.3	19288052.9	24.. 68	568120.8	3
11.. 55	1789705.1	17498347.8	25.. 69	512275.0	3
12.. 56	1665862.6	15832485.2	26.. 70	460528.5	2
13.. 57	1548609.8	14283875.4	27.. 71	412882.3	2

TABLE XXXI.

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ntory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Forty-Four Years—*continued*.

D.	N.	Ages.	D.	N.
367205.6	1984597.4	44 & 88	15201.61	37565.61
323058.8	1661538.6	45.. 89	11127.98	26437.63
280852.6	1380686.0	46.. 90	8191.38	18246.25
240902.2	1139783.8	47.. 91	5683.11	12563.138
205396.9	934386.9	48.. 92	3809.610	8753.528
173695.7	760691.2	49.. 93	2575.899	6177.629
146168.7	614522.5	50.. 94	1792.346	4385.283
122799.8	491722.72	51.. 95	1263.069	3122.214
102046.51	389676.21	52.. 96	909.059	2213.155
84456.74	305219.47	53.. 97	667.262	1545.893
68915.58	236303.89	54.. 98	486.286	1059.607
55770.03	180533.81	55.. 99	357.738	701.8691
44564.66	135969.15	56..100	273.7616	428.1075
35238.77	100730.38	57..101	198.9334	229.1741
27296.88	73433.50	58..102	132.5008	96.6733
20666.28	52767.22	59..103	73.8819	22.7914

Difference of Age Forty-Five Years.

D.	N.	Ages.	D.	N.
5260986.	44456323.8	30 & 75	243360.7	1152237.4
4176574.0	40279749.8	31.. 76	207514.8	944722.6
3602882.6	36676867.2	32.. 77	175473.3	769249.3
3161705.8	33515161.4	33.. 78	147652.8	621596.5
2856526.9	30658634.5	34.. 79	124059.4	497537.07
2606206.1	28052428.4	35.. 80	103104.09	394432.98
2405202.4	25647226.0	36.. 81	85357.43	309075.55
2230196.1	23417029.9	37.. 82	69671.88	239403.67
2073310.9	21343719.0	38.. 83	56399.87	183003.80
1929914.9	19413804.1	39.. 84	45100.32	137903.48
1797775.5	17616028.6	40.. 85	35703.08	102200.40
1673931.6	15942097.0	41.. 86	27678.17	74522.23
1556391.8	14385705.2	42.. 87	20967.64	53554.59
1444046.0	12941659.2	43.. 88	15426.57	38128.02
1335037.4	11606621.8	44.. 89	11295.12	26832.90
1226688.4	10377933.4	45.. 90	8314.51	18518.39
1123990.0	9253943.4	46.. 91	5768.57	12749.823
1025236.0	8228707.4	47.. 92	3866.066	8883.757
933390.8	7295316.6	48.. 93	2612.302	6271.455
848989.3	6446327.3	49.. 94	1817.212	4454.243
770960.3	5675367.0	50.. 95	1280.247	3173.996
699103.7	4976258.3	51.. 96	922.241	2251.755
633091.6	4343166.7	52.. 97	677.560	1574.195
572150.7	3771016.0	53.. 98	494.267	1079.928
515934.8	3255081.2	54.. 99	363.886	716.0421
463921.7	2791159.5	55..100	278.7577	437.2844
415947.1	2375212.4	56..101	202.7864	234.4980
370080.4	2005132.0	57..102	135.3287	99.1693
325893.7	1679238.3	58..103	75.7148	23.4545
283640.2	1395596.1			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	4936265.	41230551.6	29 & 75	245776.1	1164628.7
1 .. 47	3918754.3	37311797.3	30 .. 76	209632.6	954996.1
2 .. 48	3381208.3	33930589.0	31 .. 77	177282.7	777713.4
3 .. 49	2969187.9	30961401.1	32 .. 78	149163.9	628549.5
4 .. 50	2683276.5	28278124.6	33 .. 79	125319.0	503230.50
5 .. 51	2448795.8	25829328.8	34 .. 80	104161.66	399068.84
6 .. 52	2257929.9	23571398.9	35 .. 81	86242.05	312826.79
7 .. 53	2091709.3	21479689.6	36 .. 82	70414.90	242411.89
8 .. 54	1942695.8	19536993.8	37 .. 83	57018.82	185393.07
9 .. 55	1806959.3	17730034.5	38 .. 84	45609.62	139783.45
10 .. 56	1681480.1	16048554.4	39 .. 85	36132.22	103651.23
11 .. 57	1563930.6	14484623.8	40 .. 86	28042.86	75608.37
12 .. 58	1451302.5	13033321.3	41 .. 87	21260.51	54347.86
13 .. 59	1341991.8	11691329.5	42 .. 88	15651.52	38696.34
14 .. 60	1235514.4	10455815.1	43 .. 89	11462.27	27234.07
15 .. 61	1130991.4	9324823.7	44 .. 90	8439.39	18794.68
16 .. 62	1032159.9	8292663.8	45 .. 91	5855.28	12939.403
17 .. 63	939889.5	7352774.3	46 .. 92	3924.208	9015.195
18 .. 64	854941.7	6497832.6	47 .. 93	2651.016	6364.179
19 .. 65	776403.8	5721428.8	48 .. 94	1842.893	4521.286
20 .. 66	704080.0	5017348.8	49 .. 95	1298.009	3223.277
21 .. 67	637519.5	4379829.3	50 .. 96	934.784	2288.493
22 .. 68	576180.6	3803648.7	51 .. 97	687.385	1601.108
23 .. 69	519594.6	3284054.1	52 .. 98	501.896	1099.212
24 .. 70	467235.9	2816818.2	53 .. 99	369.859	729.3526
25 .. 71	419011.7	2397806.5	54 ..100	283.5485	445.8041
26 .. 72	372827.4	2024979.1	55 ..101	206.4872	239.3169
27 .. 73	328445.1	1696534.0	56 ..102	137.9498	101.3671
28 .. 74	286129.2	1410404.8	57 ..103	77.3307	24.0364

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 47	4631550.	38200455.1	16 & 63	946237.0	7409561.5
1 .. 48	3677645.4	34522809.7	17 .. 64	860894.1	6548667.4
2 .. 49	3175324.9	31347484.8	18 .. 65	781847.3	5766820.1
3 .. 50	2789104.5	28558380.3	19 .. 66	709051.3	5057768.8
4 .. 51	2521211.2	26037169.1	20 .. 67	642052.9	4415715.9
5 .. 52	2298854.0	23738315.1	21 .. 68	580210.5	3835505.4
6 .. 53	2117720.9	21620594.2	22 .. 69	523254.3	3312251.1
7 .. 54	1959935.1	19660659.1	23 .. 70	470550.2	2841700.9
8 .. 55	1818925.8	17841733.3	24 .. 71	422005.2	2419695.7
9 .. 56	1690069.7	16151663.6	25 .. 72	375574.4	2044121.3
10 .. 57	1570983.0	14580680.6	26 .. 73	330883.1	1713238.2
11 .. 58	1458332.3	13122348.3	27 .. 74	288369.2	1424869.0
12 .. 59	1348735.5	11773612.8	28 .. 75	247932.8	1176936.2
13 .. 60	1241950.4	10531662.4	29 .. 76	211713.3	965222.9
14 .. 61	1137274.7	9394387.7	30 .. 77	179092.1	786130.8
15 .. 62	1038589.2	8355798.5	31 .. 78	150701.9	635428.9

TABLE XXXI.   801

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Forty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
32 & 79	126601.5	508827.40	45 & 92	3983.194	9148.752
33.. 80	105219.23	403608.17	46.. 93	2690.885	6457.867
34.. 81	87126.66	316481.51	47.. 94	1870.204	4587.663
35.. 82	71144.66	245336.85	48.. 95	1316.352	3271.311
36.. 83	57626.91	187709.94	49.. 96	947.752	2323.559
37.. 84	46110.15	141599.79	50.. 97	696.734	1626.825
38.. 85	36540.25	105059.54	51.. 98	509.173	1117.652
39.. 86	28379.93	76679.61	52.. 99	375.568	742.0837
40.. 87	21540.64	55138.97	53..100	288.2025	453.8812
41.. 88	15870.13	39268.84	54..101	210.0360	243.8452
42.. 89	11629.41	27639.43	55..102	140.4673	103.3779
43.. 90	8564.26	19075.17	56..103	78.8285	24.5494
44.. 91	5943.22	13131.946			

Difference of Age Forty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 48	4346585.	35353379.4	28 & 76	213571.1	975384.4
1.. 49	3453711.7	31899667.7	29.. 77	180869.6	794514.8
2.. 50	2982739.2	28916928.5	30.. 78	152240.0	642274.8
3.. 51	2620647.5	26296281.0	31.. 79	127906.9	514367.94
4.. 52	2366835.4	23929445.6	32.. 80	106296.03	408071.91
5.. 53	2156103.8	21773341.8	33.. 81	88011.28	320060.63
6.. 54	1984308.1	19789033.7	34.. 82	71874.41	248186.22
7.. 55	1835066.9	17953966.8	35.. 83	58224.14	189962.08
8.. 56	1701262.1	16252704.7	36.. 84	46601.90	143360.18
9.. 57	1579008.0	14673696.7	37.. 85	36941.26	106418.92
10.. 58	1464908.5	13208788.2	38.. 86	28700.42	77718.50
11.. 59	1355268.4	11853519.8	39.. 87	21799.55	55918.95
12.. 60	1248191.4	10605328.4	40.. 88	16079.24	39839.71
13.. 61	1143198.9	9462129.5	41.. 89	11791.86	28047.85
14.. 62	1044359.2	8417770.3	42.. 90	8689.17	19358.68
15.. 63	952131.2	7465639.1	43.. 91	6031.17	13327.509
16.. 64	866708.1	6598931.0	44.. 92	4043.022	9284.487
17.. 65	787290.9	5811640.1	45.. 93	2731.332	6553.155
18.. 66	714022.6	5097617.5	46.. 94	1898.329	4654.826
19.. 67	646586.3	4451031.2	47.. 95	1335.860	3318.966
20.. 68	584336.3	3866694.9	48.. 96	961.147	2357.819
21.. 69	526913.9	3339781.0	49.. 97	706.400	1651.419
22.. 70	473864.7	2865916.3	50.. 98	516.098	1135.321
23.. 71	424998.6	2440917.7	51.. 99	381.013	754.3079
24.. 72	378257.6	2062660.1	52..100	292.6511	461.6568
25.. 73	333320.9	1729339.2	53..101	213.4834	248.1734
26.. 74	290509.8	1438829.4	54..102	142.8814	105.2920
27.. 75	249873.9	1168955.5	55..103	80.2671	25.0249

3 F

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 6 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	43853866.	412335229.0	49 & 56	682451.0	5371224.3
1.. 8	34696591.7	377638637.3	50.. 57	622947.0	4748277.3
2.. 9	29896227.0	347742410.3	51.. 58	567684.0	4180593.3
3..10	26238993.0	321503417.3	52.. 59	515118.5	3665474.8
4..11	23707618.7	297795798.6	53.. 60	465042.3	3200432.5
5..12	21618564.6	276177234.0	54.. 61	417179.7	2783252.8
6..13	19931644.4	256245589.6	55.. 62	373070.1	2410182.7
7..14	18476233.5	237769356.1	56.. 63	332715.1	2077467.6
8..15	17181639.9	220587716.2	57.. 64	296140.5	1781327.1
9..16	16002773.4	204584942.8	58.. 65	262660.8	1518666.3
10..17	14919468.9	189665473.9	59.. 66	231860.4	1286805.9
11..18	13814904.1	175850569.8	60.. 67	203517.9	1083288.0
12..19	12973032.2	162877537.6	61.. 68	177331.2	905956.8
13..20	12092136.5	150785401.1	62.. 69	153814.1	752142.7
14..21	11268430.1	139516971.0	63.. 70	132820.0	619322.7
15..22	10498434.2	129018536.8	64.. 71	114285.3	505037.4
16..23	9774028.6	119244508.2	65.. 72	97435.8	407601.6
17..24	9094416.8	110150091.4	66.. 73	82138.7	325462.9
18..25	8459878.2	101690213.2	67.. 74	68400.0	257062.9
19..26	7867481.8	93822731.4	68.. 75	56103.7	200959.2
20..27	7315810.6	86506920.8	69.. 76	45648.8	155310.4
21..28	6799742.9	79707177.9	70.. 77	36733.2	118577.2
22..29	6314883.7	73392294.2	71.. 78	29333.6	89243.6
23..30	5857629.9	67534664.3	72.. 79	23210.5	66033.05
24..31	5431708.0	62102956.3	73.. 80	17988.76	48044.29
25..32	5035977.9	57066978.4	74.. 81	13740.54	34303.75
26..33	4668397.2	52398581.2	75.. 82	10215.77	24087.98
27..34	4327757.6	48070823.6	76.. 83	7490.55	16597.43
28..35	4009943.9	44060879.7	77.. 84	5382.47	11214.96
29..36	3711593.1	40349286.6	78.. 85	3812.60	7402.36
30..37	3430505.1	36918781.5	79.. 86	2643.56	4758.798
31..38	3168854.0	33749927.5	80.. 87	1773.267	2985.531
32..39	2925932.6	30823994.9	81.. 88	1151.589	1833.942
33..40	2699899.0	28124095.9	82.. 89	734.168	1099.774
34..41	2488682.0	25635413.9	83.. 90	466.926	632.848
35..42	2291962.0	23343451.9	84.. 91	276.573	356.2749
36..43	2109291.7	21234160.2	85.. 92	156.7767	199.4982
37..44	1940189.6	19293970.6	86.. 93	87.8243	111.6739
38..45	1783707.1	17510263.5	87.. 94	49.4994	62.1745
39..46	1639311.5	15870952.0	88.. 95	27.4505	34.7240
40..47	1505510.6	14365441.4	89.. 96	15.4897	19.2343
41..48	1381350.9	12984090.5	90.. 97	8.9720	10.9623
42..49	1267300.4	11716790.1	91.. 98	4.8679	5.39143
43..50	1162259.0	10554531.1	92.. 99	2.57735	2.81708
44..51	1065954.0	9488547.1	93..100	1.432354	1.38472
45..52	976603.6	8511943.5	94..101	.778512	.60621
46..53	893882.9	7618060.6	95..102	.393453	.21276
47..54	817375.5	6800685.1	96..103	.170744	.04202
48..55	747009.8	6053675.3			

TABLE XXXII. 817

reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Eight Years.

a.	D.	N.	Ages.	D.	N.
8	41007673.	386134635.1	48 & 56	692095.5	5492905.3
9	32517287.1	353617348.0	49.. 57	631589.3	4861316.0
10	28060644.4	325556703.6	50.. 58	575404.9	4285911.1
11	24642643.4	300914060.2	51.. 59	522587.4	3763323.7
12	22257866.1	278656194.1	52.. 60	472220.6	3291103.1
13	20292898.0	258363296.1	53.. 61	424027.0	2867076.1
14	18705995.7	239657300.4	54.. 62	379481.8	2487594.3
15	17334108.4	222323192.0	55.. 63	338787.1	2148807.2
16	16108752.2	206214439.8	56.. 64	301876.3	1846930.9
17	14995682.9	191218756.9	57.. 65	268266.7	1578664.2
18	13977652.1	177241104.8	58.. 66	237612.1	1341052.1
19	13035870.3	164205234.5	59.. 67	209439.6	1131612.5
20	12152901.1	152052333.4	60.. 68	183475.5	948137.0
21	11327129.0	140725204.4	61.. 69	159522.8	788614.2
22	10556758.8	130168445.6	62.. 70	137981.7	650632.5
23	9834911.4	120333534.2	63.. 71	118830.6	531801.9
24	9155836.0	111177698.2	64.. 72	101471.5	430330.4
25	8518779.5	102658918.7	65.. 73	85658.1	344672.3
26	7922642.8	94736275.9	66.. 74	71436.2	273236.1
27	7367465.9	87368810.0	67.. 75	58709.8	214526.3
28	6848095.6	80520714.4	68.. 76	47872.3	166654.0
29	6359051.1	74161663.3	69.. 77	38630.4	128023.6
30	5898887.7	68262775.6	70.. 78	30931.1	97092.5
31	5470237.2	62792538.4	71.. 79	24661.8	72430.70
32	5071955.4	57720583.0	72.. 80	19303.92	53126.78
33	4702794.2	53017788.8	73.. 81	14904.88	38221.90
34	4359881.6	48657907.2	74.. 82	11228.22	26993.68
35	4041337.0	44616570.2	75.. 83	8281.60	18712.08
36	3744162.3	40872407.9	76.. 84	6000.34	12711.74
37	3464554.7	37407853.2	77.. 85	4271.51	8440.23
38	3201195.0	34206658.2	78.. 86	2966.35	5473.88
39	2956102.3	31250555.9	79.. 87	2011.44	3462.441
40	2727529.6	28523026.3	80.. 88	1311.188	2151.253
41	2513950.1	26009076.2	81.. 89	847.583	1303.670
42	2315471.5	23693604.7	82.. 90	543.373	760.297
43	2131151.6	21562453.1	83.. 91	325.718	434.5793
44	1960881.1	19601572.0	84.. 92	186.3705	248.2088
45	1803262.0	17798290.0	85.. 93	106.4899	141.7189
46	1657823.9	16140466.1	86.. 94	61.3726	80.3463
47	1523606.4	14616859.7	87.. 95	35.0231	45.3232
48	1399552.0	13217307.7	88.. 96	19.8542	25.4690
49	1285001.5	11932306.2	89.. 97	11.4361	14.0329
50	1179207.2	10753099.0	90.. 98	6.5832	7.4497
51	1081758.1	9671340.9	91.. 99	3.6083	3.841378
52	991272.3	8680068.6	92..100	1.989380	1.851998
53	907319.0	7772749.6	93..101	1.050991	.801007
54	829668.4	6943081.2	94..102	.524604	.276403
55	758080.4	6185000.8	95..103	.222710	.053093

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	38431967.	361487041.2	48 & 57	640514.8	4970036.3
1..10	30520775.3	330966265.9	49.. 58	583387.6	4386648.7
2..11	26353467.5	304612798.4	50.. 59	529694.9	3856953.8
3..12	23135713.8	281477085.6	51.. 60	479067.5	3377886.3
4..13	20892996.8	260584088.8	52.. 61	430572.1	2947314.2
5..14	19045034.7	241539054.1	53.. 62	385710.4	2561603.8
6..15	17549667.6	223989386.5	54.. 63	344609.7	2216994.1
7..16	16251700.0	207737686.5	55.. 64	307385.4	1909608.7
8..17	15094992.2	192642694.3	56.. 65	273462.7	1635146.0
9..18	14049055.0	178593639.3	57.. 66	242083.5	1393462.5
10..19	13094654.4	165498984.9	58.. 67	214635.1	1178827.4
11..20	12211766.7	153287218.2	59.. 68	188814.0	990013.4
12..21	11384049.4	141903168.8	60.. 69	163050.1	821963.3
13..22	10611750.6	131291418.2	61.. 70	143102.6	681860.7
14..23	9889549.8	121401868.4	62.. 71	123448.8	558412.2
15..24	9212868.0	112189000.4	63.. 72	105507.0	452905.2
16..25	8576311.1	103612689.3	64.. 73	89205.9	363699.3
17..26	7977803.7	95634885.6	65.. 74	74496.9	289202.4
18..27	7419120.9	88215764.7	66.. 75	61315.8	227886.6
19..28	6896448.4	81319316.3	67.. 76	50096.1	177790.5
20..29	6404270.1	74915046.2	68.. 77	40512.1	137278.4
21..30	5940145.5	68974900.7	69.. 78	32528.5	104749.9
22..31	5508766.4	63466134.3	70.. 79	26004.8	78745.08
23..32	5107932.7	58358201.6	71.. 80	20510.99	56234.09
24..33	4736391.3	53621810.3	72.. 81	15994.57	42239.52
25..34	4392005.3	49229805.0	73.. 82	12179.65	30059.87
26..35	4071334.7	45158470.3	74.. 83	9102.87	20957.50
27..36	3773474.7	41384995.6	75.. 84	6634.03	14323.47
28..37	3494958.3	37890039.3	76.. 85	4761.83	9561.64
29..38	3232968·5	34657070.8	77.. 86	3323.39	6238.25
30..39	2986272.0	31670798.8	78.. 87	2257.05	3981.20
31..40	2755653.6	28915145.2	79.. 88	1487.29	2493.912
32..41	2539677.8	26375467.4	80.. 89	965.051	1528.861
33..42	2338981.0	24036486.4	81.. 90	627.314	901.547
34..43	2153011.6	21883474.8	82.. 91	379.047	522.5002
35..44	1981203.0	19902271.8	83.. 92	219.4874	303.0128
36..45	1822513.3	18079758.5	84.. 93	126.5914	176.4214
37..46	1676017.2	16403741.3	85.. 94	74.4164	102.0050
38..47	1540812.2	14862929.1	86.. 95	43.4210	58.5810
39..48	1416374.1	13446555.0	87.. 96	25.3311	33.2499
40..49	1301933.1	12144621.9	88.. 97	14.6586	18.5913
41..50	1195677.9	10948944.0	89.. 98	8.3914	10.1993
42..51	1097532.5	9851411.5	90.. 99	4.8798	5.32005
43..52	1005941.0	8845470.5	91..100	2.78514	2.53490
44..53	920946.9	7924523.6	92..101	1.459710	1.075195
45..54	842139.1	7082384.5	93..102	.708215	.366989
46..55	769481.3	6312903.2	94..103	.296946	.070034
47..56	702352.1	5610551.1			

TABLE XXXII. 819

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Ten Years.

Ages	D.	N.	Ages	D.	N.
0 & 10	36072303.	338342547.9	47 & 57	650007.0	5075119.8
1..11	29665927.1	309678620.8	48.. 58	591632.0	4483487.8
2..12	24741917.7	284936703.1	49.. 59	537043.5	3946444.3
3..13	21717013.5	263219689.6	50.. 60	485583.2	3460861.1
4..14	19608232.1	243611457.5	51.. 61	436815.2	3024045.9
5..15	17867748.8	225743708.7	52.. 62	391664.0	2632381.9
6..16	16453798.8	209289909.9	53.. 63	350265.8	2282116.1
7..17	15228944.0	194060966.9	54.. 64	312668.3	1969447.8
8..18	14142095.0	179918870.9	55.. 65	278453.4	1690994.4
9..19	13161546.5	166757324.4	56.. 66	247383.9	1443610.5
10..20	12266834.5	154490489.9	57.. 67	219216.1	1224394.4
11..21	11439190.9	143051299.0	58.. 68	193497.8	1030896.6
12..22	10665076.0	132386223.0	59.. 69	169852.5	861044.1
13..23	9941065.9	122445157.1	60.. 70	148061.1	712983.0
14..24	9264060.6	113181106.5	61.. 71	128030.1	584952.9
15..25	8629733.3	104551373.2	62.. 72	109607.3	475345.6
16..26	8031681.8	96519691.4	63.. 73	92753.7	382591.9
17..27	7470776.0	89048915.4	64.. 74	77582.6	305009.3
18..28	6944801.0	82104114.4	65.. 75	63943.1	241066.2
19..29	6449489.0	75654625.4	66.. 76	52319.7	188746.5
20..30	5982385.7	69672239.7	67.. 77	42393.9	146352.6
21..31	5547295.6	64124944.1	68.. 78	34113.0	112239.6
22..32	5143910.1	58981034.0	69.. 79	27347.9	84891.72
23..33	4769988.4	54211045.6	70.. 80	21627.97	63263.75
24..34	4423382.2	49787663.4	71.. 81	16994.71	46269.04
25..35	4101332.5	45686330.9	72.. 82	13070.10	33198.94
26..36	3801484.4	41884846.5	73.. 83	9873.68	23325.26
27..37	3522317.6	38362528.9	74.. 84	7291.49	16033.77
28..38	3261337.9	35101191.0	75.. 85	5264.73	10769.04
29..39	3015912.4	32085278.6	76.. 86	3704.88	7064.16
30..40	2783777.6	29301501.0	77.. 87	2528.72	4535.44
31..41	2565864.7	26735636.3	78.. 88	1668.91	2866.53
32..42	2362917.9	24372718.4	79.. 89	1094.67	1771.857
33..43	2174871.6	22197846.8	80.. 90	714.254	1057.603
34..44	2001524.9	20196321.9	81.. 91	437.604	619.9985
35..45	1841401.2	18354920.7	82.. 92	255.4227	364.5758
36..46	1693891.4	16661029.3	83.. 93	149.0859	215.4899
37..47	1557721.5	15103307.8	84.. 94	88.4636	127.0263
38..48	1432369.1	13670938.7	85.. 95	52.6531	74.3732
39..49	1317581.9	12353356.8	86.. 96	31.4072	42.9660
40..50	1211432.5	11141924.3	87.. 97	18.7023	24.2637
41..51	1112862.4	10029061.9	88.. 98	10.7557	13.5080
42..52	1020609.6	9008452.3	89.. 99	6.2200	7.26804
43..53	934575.0	8073877.3	90..100	3.76656	3.52148
44..54	854788.1	7219089.2	91..101	2.04359	1.477889
45..55	781047.4	6438041.8	92..102	.983633	.494256
46..56	712915.0	5725126.8	93..103	.400877	.093379

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Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	79820756.	624945203.5	52 & 53	820752.2	6585473.1
1.. 2	58577891.5	566367312.0	53.. 54	750211.2	5835261.9
2.. 3	47509392.0	518857920.0	54.. 55	684552.4	5150709.5
3.. 4	40320301.5	478537618.5	55.. 56	623513.5	4527196.0
4.. 5	35543638.1	442993980.4	56.. 57	566701.9	3960494.1
5.. 6	31988833.6	411005146.8	57.. 58	513506.6	3446987.5
6.. 7	29276840.8	381728306.0	58.. 59	462835.5	2984152.0
7.. 8	27040459.1	354687846.9	59.. 60	414021.3	2570130.7
8.. 9	25119133.5	329568713.4	60.. 61	366832.1	2203298.6
9..10	23421746.2	306146967.2	61.. 62	322509.2	1880789.4
10..11	21884998.1	284261969.1	62.. 63	282391.8	1598397.6
11..12	20454463.7	263807505.4	63.. 64	246632.8	1351764.8
12..13	19107628.0	244699877.4	64.. 65	214873.3	1136891.5
13..14	17842986.9	226856890.5	65.. 66	186651.1	950240.4
14..15	16653257.1	210203633.4	66.. 67	161674.6	788565.8
15..16	15527102.0	194676531.4	67.. 68	139558.3	649007.5
16..17	14459875.5	180216655.9	68.. 69	119970.5	529037.0
17..18	13456194.7	166760461.2	69.. 70	102622.5	426414.5
18..19	12518976.0	154241485.2	70.. 71	87304.9	339109.6
19..20	11645897.3	142595587.9	71.. 72	73512.8	265596.8
20..21	10832634.3	131762953.6	72.. 73	60823.5	204773.3
21..22	10076830.4	121686123.2	73.. 74	49294.4	155478.9
22..23	9374387.8	112311735.4	74.. 75	39005.8	116473.1
23..24	8720052.7	103591682.7	75.. 76	30281.8	86191.3
24..25	8110579.5	95481103.2	76.. 77	23178.3	63013.0
25..26	7541647.8	87939455.4	77.. 78	17507.4	45505.6
26..27	7010684.9	80928770.5	78.. 79	13137.8	32367.82
27..28	6514124.4	74414646.1	79.. 80	9737.53	22630.293
28..29	6044621.4	68370024.7	80.. 81	7112.847	15517.446
29..30	5597312.6	62772712.1	81.. 82	5104.842	10412.604
30..31	5175763.5	57596948.6	82.. 83	3584.587	6828.017
31..32	4784136.2	52812812.4	83.. 84	2467.464	4360.553
32..33	4422018.5	48390793.9	84.. 85	1662.712	2697.841
33..34	4087949.2	44302844.7	85.. 86	1088.233	1609.608
34..35	3779030.1	40523814.6	86.. 87	682.884	926.724
35..36	3492727.8	37031086.8	87.. 88	407.253	519.471
36..37	3226815.1	33804271.7	88.. 89	234.933	284.533
37..38	2979346.9	30824924.8	89.. 90	135.655	148.883
38..39	2749148.7	28075776.1	90.. 91	74.241	74.6422
39..40	2534115.9	25541660.2	91.. 92	36.9922	37.64997
40..41	2331560.1	23210100.1	92.. 93	17.94774	19.70223
41..42	2141073.8	21069026.3	93.. 94	9.03031	10.67192
42..43	1963425.8	19105600.5	94.. 95	4.73286	5.93906
43..44	1799044.4	17306556.1	95.. 96	2.56736	3.37170
44..45	1647714.0	15658842.1	96.. 97	1.45322	1.91848
45..46	1508766.6	14150075.5	97.. 98	.83450	1.08398
46..47	1381509.9	12768565.6	98.. 99	.48111	.60369
47..48	1265250.0	11503315.6	99..100	.291776	.311096
48..49	1159810.8	10343504.8	100..101	.1751652	.1359274
49..50	1064151.0	9279353.8	101..102	.0918057	.0441217
50..51	976892.8	8302461.0	102..103	.0371183	.0070034
51..52	896235.7	7406225.3			

TABLE XXXII.   611

paratory **Table** for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Two Years.

D.	N.	Ages	D.	N.
69232823.	579257777.6	51 & 53	832652.8	6774293.6
51674632.2	527583145.4	52 .. 54	761791.2	6012502.4
43119552.5	464463502.0	53 .. 55	695788.1	5316714.3
36945473.6	447518119.3	54 .. 56	634229.5	4682484.9
32934803.3	414583316.0	55 .. 57	577044.2	4105440.6
29807472.5	384775843.5	56 .. 58	523452.3	3581988.3
27376722.2	357399121.3	57 .. 59	472713.8	3109274.5
25342038.8	332057082.6	58 .. 60	424291.8	2684982.7
23576857.1	308480225.4	59 .. 61	377505.7	2307477.0
21996794.5	286483430.9	60 .. 62	333683.8	1973793.2
20546701.2	265936729.7	61 .. 63	292872.5	1680920.7
19200180.6	246736549.1	62 .. 64	256217.4	1424703.3
17932650.1	228803899.0	63 .. 65	223418.9	1201284.4
16740006.5	212063892.5	64 .. 66	194381.8	1006902.6
15613363.7	196450528.8	65 .. 67	168602.1	838300.5
14549946.5	181900582.3	66 .. 68	145752.6	692547.7
13547071.1	168353511.2	67 .. 69	125543.2	567004.5
12606138.6	155747372.6	68 .. 70	107621.6	459383.0
11727549.5	144019823.1	69 .. 71	91813.7	367569.3
10909121.1	133110702.0	70 .. 72	77516.2	290053.0
10148486.4	122962215.6	71 .. 73	64626.8	225426.2
9439953.8	113522261.8	72 .. 74	52898.8	172527.9
8781471.8	104740790.0	73 .. 75	42311.0	130216.9
8168111.0	96572679.0	74 .. 76	33282.9	96934.0
7595525.9	88977153.1	75 .. 77	25626.1	71307.9
7062339.9	81914813.2	76 .. 78	19517.1	51790.8
6562477.2	75352336.0	77 .. 79	14719.0	37071.77
6091943.6	69260392.4	78 .. 80	10926.58	26145.19
5646429.1	63613963.3	79 .. 81	8068.19	18077.001
5227135.9	58386827.4	80 .. 82	5812.324	12264.677
4832962.7	53553864.7	81 .. 83	4138.344	8126.333
4467614.6	49086250.1	82 .. 84	2871.447	5254.886
4129785.0	44956465.1	83 .. 85	1958.165	3296.721
3817399.5	41139065.6	84 .. 86	1293.652	2003.069
3528554.0	37610511.6	85 .. 87	828.021	1175.048
3260256.7	34350254.9	86 .. 88	504.938	670.110
3011120.6	31339134.3	87 .. 89	299.743	370.357
2779318.4	28559815.9	88 .. 90	173.879	196.488
2562733.2	25997082.7	89 .. 91	94.631	101.8565
2359384.8	23637497.9	90 .. 92	50.0375	51.8289
2169285.2	21468212.7	91 .. 93	25.1268	26.70208
1990850.2	19477362.5	92 .. 94	12.54210	14.15998
1825276.4	17652084.1	93 .. 95	6.38936	7.77062
1672096.6	15979987.5	94 .. 96	3.42314	4.31748
1531428.3	14448559.2	95 .. 97	1.89550	2.45198
1402275.6	13046283.6	96 .. 98	1.04618	1.38468
1284278.4	11762005.2	97 .. 99	.61858	.767116
1176998.8	10585006.4	98 ..100	.371351	.395765
1079189.5	9505816.9	99 ..101	.214091	.1816739
990445.3	8515371.6	100 ..102	.1180359	.0318064
908435.2	7606946.4	101 ..103	.0319856	.0118724

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.'
0 & 3	61073907.	539451516.2	51 & 54	772836.9	6182875.8
1.. 4	46899927.4	492551588.8	52.. 55	706528.2	5476347.6
2.. 5	39510426.2	453041162.6	53.. 56	644639.2	4831708.4
3.. 6	34233746.6	418807416.0	54.. 57	586961.4	4244747.0
4.. 7	30688935.2	388118480.8	55.. 58	533005.3	3711741.7
5.. 8	27872914.9	360245565.9	56.. 59	481869.4	3229872.3
6.. 9	25657181.0	334588384.9	57.. 60	433347.4	2796524.9
7..10	23786076.4	310802308.5	58.. 61	386870.4	2409654.5
8..11	22142468.7	288659839.8	59.. 62	343392.9	2066261.6
9..12	20651661.1	268008178.7	60.. 63	303020.1	1763241.5
10..13	19286762.0	248721416.7	61.. 64	265726.6	1497514.9
11..14	18019511.4	230701903.3	62.. 65	232101.4	1265413.5
12..15	16824127.2	213877778.1	63.. 66	202112.5	1063301.0
13..16	15694696.1	198183082.0	64.. 67	175585.2	887715.8
14..17	14630779.5	183552302.5	65.. 68	151998.1	735717.7
15..18	13631456.4	169920846.1	66.. 69	131115.8	604601.9
16..19	12691274.1	157229572.0	67.. 70	112620.6	491981.3
17..20	11809201.9	145420370.1	68.. 71	96286.2	395695.1
18..21	10985607.6	134434762.5	69.. 72	81519.5	314175.6
19..22	10220142.4	124214620.1	70.. 73	68146.3	246029.3
20..23	9507081.0	114707539.1	71.. 74	56206.1	189823.2
21..24	8842890.9	105364648.2	72.. 75	45404.2	144419.0
22..25	8225642.6	97639005.6	73.. 76	36103.1	108315.9
23..26	7649404.0	89989601.6	74.. 77	28165.8	80150.1
24..27	7112793.9	82876807.7	75.. 78	21578.2	58571.9
25..28	6610829.8	76265977.9	76.. 79	16408.7	42163.16
26..29	6137162.6	70128815.3	77.. 80	12241.72	29921.44
27..30	5690633.9	64438181.4	78.. 81	9053.40	20868.04
28..31	5273004.0	59165177.4	79.. 82	6592.99	14275.051
29..32	4880932.5	54284244.9	80.. 83	4711.879	9563.172
30..33	4513210.6	49771034.3	81.. 84	3315.036	6248.136
31..34	4172367.8	45598666.5	82.. 85	2278.765	3969.371
32..35	3856466.6	41742199.9	83.. 86	1523.526	2445.845
33..36	3564380.2	38177819.7	84.. 87	984.321	1461.524
34..37	3293698.4	34884121.3	85.. 88	612.254	849.270
35..38	3042326.9	31841794.4	86.. 89	371.640	477.630
36..39	2808958.7	29032835.7	87.. 90	221.845	255.785
37..40	2590857.1	26441978.6	88.. 91	121.296	134.4888
38..41	2386231.2	24055747.4	89.. 92	63.7676	70.7212
39..42	2195359.3	21860388.1	90.. 93	33.9810	36.7402
40..43	2017082.2	19843305.9	91.. 94	17.5589	19.1813
41..44	1850773.1	17992532.8	92.. 95	8.87412	10.30714
42..45	1696479.3	16296053.5	93.. 96	4.62124	5.68590
43..46	1554090.1	14741963.4	94.. 97	2.52734	3.15856
44..47	1423337.8	13318625.6	95.. 98	1.39083	1.76773
45..48	1303582.6	12015043.0	96.. 99	.79038	.977354
46..49	1194699.9	10820343.1	97..100	.477451	.49989
47..50	1095182.7	9725160.4	98..101	.272479	.22742
48..51	1004442.2	8720718.2	99..102	.144266	.08315
49..52	921028.0	7799690.2	100..103	.0668129	.01634
50..53	843977.5	6955712.7			

TABLE XXXII.   **813**

ry Table for finding the Values of Annuities, &c. on Two Joint Lives,
(Carlisle 6 per Cent.)

Difference of Age Four Years.

D.	N.	Ages.	D.	N.
30714.	503550398.8	50 & 54	783348.0	6346467.0
4381.6	460576017.2	51 .. 55	716772.4	5629694.6
0436.5	423965580.7	52 .. 56	654589.7	4975104.9
9302.0	392066278.7	53 .. 57	596595.5	4378509.4
7169.2	363369109.5	54 .. 58	542165.7	3836343.7
2207.7	337246901.8	55 .. 59	490663.6	3345680.1
1869.4	313165032.4	56 .. 60	441740.5	2903939.6
8959.4	290826073.0	57 .. 61	395127.3	2508812.3
8427.1	270037645.9	58 .. 62	351911.4	2156900.9
5285.6	250652360.3	59 .. 63	311837.0	1845063.9
0768.7	232551591.6	60 .. 64	274933.8	1570130.1
5619.1	215645972.5	61 .. 65	240715.5	1329414.6
3563.9	199872408.6	62 .. 66	209967.0	1119447.6
6993.5	185165415.1	63 .. 67	182568.4	936879.2
7186.7	171458228.4	64 .. 68	158293.6	778585.6
0328.6	158687899.8	65 .. 69	136733.8	641851.8
8955.3	146798944.5	66 .. 70	117619.7	524232.1
2094.2	135736850.3	67 .. 71	100758.8	423473.3
1798.4	125445051.9	68 .. 72	85490.4	337982.9
4208.2	115870843.7	69 .. 73	71665.6	266317.3
5772.4	106965071.3	70 .. 74	59266.8	207050.5
3174.0	98681897.3	71 .. 75	48243.4	158807.1
3282.0	90978615.3	72 .. 76	38742.6	120064.5
3247.7	83815367.6	73 .. 77	30552.3	89512.2
8058.1	77157309.5	74 .. 78	23716.8	65795.4
2381.6	70974927.9	75 .. 79	18141.6	47653.75
2874.0	65242053.9	76 .. 80	13646.97	34006.78
4285.4	59927768.5	77 .. 81	10143.08	23863.70
3762.8	55004005.7	78 .. 82	7398.05	16465.65
8006.6	50445999.1	79 .. 83	5344.74	11120.905
4950.5	46231048.6	80 .. 84	3774.467	7346.438
6231.1	42334817.5	81 .. 85	2630.795	4715.643
0857.6	38733959.9	82 .. 86	1772.964	2942.679
7140.0	35406819.9	83 .. 87	1159.229	1783.450
3533.1	32333286.8	84 .. 88	727.826	1055.624
8069.9	29495216.9	85 .. 89	450.627	604.997
8487.7	26876729.2	86 .. 90	275.059	329.938
2418.1	24464311.1	87 .. 91	154.756	175.1816
0151.2	22244159.9	88 .. 92	81.7353	93.4463
1326.9	20202833.0	89 .. 93	43.3138	50.1325
5159.4	18327673.6	90 .. 94	23.7463	26.3862
0175.1	16607498.5	91 .. 95	12.4238	13.96236
6752.0	15030746.5	92 .. 96	6.41839	7.54397
4400.1	13586346.4	93 .. 97	3.41190	4.13207
3162.5	12263183.9	94 .. 98	1.85444	2.27763
2657.8	11050526.1	95 .. 99	1.03094	1.246688
1653.4	9938872.7	96 ..100	.610076	.636612
9327.8	8919544.9	97 ..101	.350330	.286282
4043.8	7985501.1	98 ..102	.183611	.102671
5686.1	7129815.0	99 ..103	.081661	.0210103

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	50791139.	470823613.1	50 & 55	726521.0	5776844.8
1.. 6	39820144.4	431003468.7	51.. 56	664080.9	5112763.9
2.. 7	34113922.2	396889546.5	52.. 57	605804.3	4506959.6
3.. 8	29828980.9	367060565.6	53.. 58	551064.4	3955895.2
4.. 9	26894690.2	340165875.4	54.. 59	499096.3	3456798.9
5..10	24518344.1	315647531.3	55.. 60	449802.3	3006996.6
6..11	22616756.6	293030774.7	56.. 61	402780.3	2604216.3
7..12	20972902.1	272057872.6	57.. 62	359422.3	2244794.0
8..13	19513665.1	252544207.5	58.. 63	319572.7	1925221.3
9..14	18193233.8	234350973.7	59.. 64	282933.4	1642287.9
10..15	16981853.4	217369120.3	60.. 65	249056.1	1393231.8
11..16	15849967.1	201519153.2	61.. 66	217759.6	1175472.2
12..17	14780898.0	186738255.2	62.. 67	189663.4	985808.8
13..18	13778589.6	172959665.6	63.. 68	164589.1	821219.7
14..19	12841274.9	160118390.7	64.. 69	142397.0	678822.7
15..20	11963012.0	148155378.7	65.. 70	122659.4	556163.3
16..21	11136802.1	137018576.6	66.. 71	105231.1	450932.2
17..22	10363454.3	126655122.3	67.. 72	89461.5	361470.7
18..23	9641335.3	117013787.0	68.. 73	75156.6	286314.1
19..24	8968653.9	108045133.1	69.. 74	62327.7	223986.4
20..25	8342075.4	99703057.7	70.. 75	50870.6	173115.8
21..26	7757160.0	91945897.7	71.. 76	41165.2	131950.6
22..27	7213701.6	84732196.1	72.. 77	32786.1	99164.5
23..28	6705286.3	78026909.8	73.. 78	25726.5	73438.0
24..29	6226549.0	71800360.8	74.. 79	19939.4	53498.55
25..30	5775114.1	66025246.7	75.. 80	15088.22	38410.33
26..31	5353732.1	60671514.6	76.. 81	11307.42	27102.91
27..32	4962310.0	55709204.6	77.. 82	8288.50	18814.41
28..33	4598003.2	51111201.4	78.. 83	5997.38	12817.03
29..34	4256786.2	46854415.2	79.. 84	4281.43	8535.598
30..35	3935995.7	42918419.5	80.. 85	2995.397	5540.201
31..36	3637986.6	39280432.9	81.. 86	2046.856	3493.345
32..37	3361189.8	35919243.1	82.. 87	1349.023	2144.322
33..38	3104739.3	32814503.8	83.. 68	857.156	1287.166
34..39	2867180.9	29947322.9	84.. 89	535.689	751.477
35..40	2645624.8	27301698.1	85.. 90	333.518	417.959
36..41	2438145.7	24863552.4	86.. 91	191.876	226.083
37..42	2244515.6	22619036.8	87.. 92	104.2829	121.7988
38..43	2064379.3	20554657.5	88.. 93	55.5183	66.2815
39..44	1897698.4	18656959.1	89.. 94	30.2683	36.0133
40..45	1742840.6	16914118.5	90.. 95	16.8016	19.2117
41..46	1598775.5	15315343.0	91.. 96	8.9858	10.2359
42..47	1465462.5	13849880.5	92.. 97	4.73876	5.4871
43..48	1342742.4	12507138.1	93.. 98	2.50349	2.9896
44..49	1230871.8	11276266.3	94.. 99	1.37459	1.6096
45..50	1128362.8	10147903.5	95..100	.795752	.8133
46..51	1034657.6	9113245.9	96..101	.447644	.3654
47..52	947886.1	8165359.8	97..102	.236072	.1294
48..53	867778.6	7297581.2	98..103	.103931	.0254
49..54	794215.4	6503365.8			

TABLE XXXII.

815

ltory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Six Years.

D.	N.	Ages.	D.	N.
47063166.	440578329.7	49 & 55	736600.2	5917887.7
37104755.9	403473573.8	50.. 56	673113.0	5244774.7
31899868.4	371573705.4	51.. 57	614588.2	4630186.5
27955412.7	343618292.7	52.. 58	559570.5	4070616.0
25243397.4	318374895.3	53.. 59	507288.2	3563327.8
23026676.8	295348218.5	54.. 60	457532.7	3105795.1
21233711.5	274114507.0	55.. 61	410131.1	2695664.0
19686827.8	254427679.2	56.. 62	366383.6	2329280.4
18313719.0	236113960.2	57.. 63	326393.4	2002887.0
17068602.7	219045357.5	58.. 64	289952.1	1712934.9
15921441.1	203123916.4	59.. 65	256302.7	1456632.2
14852493.0	188271423.4	60.. 66	225304.7	1231327.5
13847828.7	174423594.7	61.. 67	196702.4	1034625.1
12908167.0	161515427.7	62.. 68	170985.3	863639.8
12029473.2	149485954.5	63.. 69	148060.3	715379.5
11206173.6	138279780.9	64.. 70	127739.8	587639.7
10433443.9	127846337.0	65.. 71	109740.1	478099.6
9708462.5	118137874.5	66.. 72	93432.5	384667.1
9031535.4	109106339.1	67.. 73	78647.8	306019.3
8400976.8	100705362.3	68.. 74	65363.8	246655.5
7812321.0	92893041.3	69.. 75	53497.7	187157.8
7264155.5	85628885.8	70.. 76	43407.0	143750.8
6752514.6	78876371.2	71.. 77	34836.0	108914.8
6270716.3	72605654.9	72.. 78	27607.4	81307.4
5816372.1	66789282.8	73.. 79	21629.1	59678.29
5393178.6	61396104.2	74.. 80	16583.53	43094.76
4999143.9	56396960.3	75.. 81	12501.59	30593.17
4634000.1	51762960.2	76.. 82	9239.95	21353.22
4294139.6	47468820.6	77.. 83	6719.25	14633.97
3975062.7	43493757.9	78.. 84	4804.23	9829.74
3675115.6	39818642.3	79.. 85	3397.71	6432.032
3393847.5	36422794.8	80.. 86	2330.530	4101.502
3136512.9	33286281.9	81.. 87	1557.424	2544.078
2896292.1	30389989.8	82.. 88	997.493	1546.585
2672761.9	27717227.9	83.. 89	630.878	915.707
2463413.8	25253814.1	84.. 90	396.475	519.232
2268452.5	22985361.6	85.. 91	232.657	286.5754
2087034.2	20898327.4	86.. 92	129.2967	157.2787
1919128.7	18979198.7	87.. 93	70.8337	86.4450
1763789.1	17215409.6	88.. 94	38.7969	47.6481
1619841.4	15595568.2	89.. 95	21.4162	26.2319
1485931.6	14109636.6	90.. 96	12.1521	14.0798
1362322.4	12747314.2	91.. 97	6.6342	7.44562
1249086.1	11498228.1	92.. 98	3.47708	3.96854
1145310.9	10352917.2	93.. 99	1.85570	2.112343
1050209.8	9302707.4	94..100	1.061003	1.051840
962141.6	8340565.8	95..101	.583884	.467956
880638.7	7459927.1	96..102	.301647	.166309
805439.2	6654487.9	97..103	.133626	.032683

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	50791138.	470823613.1	50 & 55	726521.0	5776844.8
1 .. 6	39820144.4	431003468.7	51 .. 56	664080.9	5112763.9
2 .. 7	34113922.2	396889546.5	52 .. 57	605804.3	4506959.6
3 .. 8	29828980.9	367060565.6	53 .. 58	551064.4	3955895.2
4 .. 9	26894690.2	340165875.4	54 .. 59	499096.3	3456798.9
5 ..10	24518344.1	315647531.3	55 .. 60	449802.3	3006996.6
6 ..11	22616756.6	293030774.7	56 .. 61	402780.3	2604216.3
7 ..12	20972902.1	272057872.6	57 .. 62	359422.3	2244794.0
8 ..13	19513665.1	252544207.5	58 .. 63	319572.7	1925221.3
9 ..14	18193233.8	234350973.7	59 .. 64	282933.4	1642287.9
10 ..15	16981853.4	217369120.3	60 .. 65	249056.1	1393231.8
11 ..16	15849967.1	201519153.2	61 .. 66	217759.6	1175472.2
12 ..17	14780898.0	186738255.2	62 .. 67	189663.4	985808.8
13 ..18	13778589.6	172959665.6	63 .. 68	164589.1	821219.7
14 ..19	12841274.9	160118390.7	64 .. 69	142397.0	678822.7
15 ..20	11963012.0	148155378.7	65 .. 70	122659.4	556163.3
16 ..21	11136802.1	137018576.6	66 .. 71	105231.1	450932.2
17 ..22	10363454.3	126655122.3	67 .. 72	89461.5	361470.7
18 ..23	9641335.3	117013787.0	68 .. 73	75156.6	286314.1
19 ..24	8968653.9	108045133.1	69 .. 74	62327.7	223986.4
20 ..25	8342075.4	99703057.7	70 .. 75	50870.6	173115.8
21 ..26	7757160.0	91945897.7	71 .. 76	41165.2	131950.6
22 ..27	7213701.6	84732196.1	72 .. 77	32786.1	99164.5
23 ..28	6705286.3	78026909.8	73 .. 78	25726.5	73438.0
24 ..29	6226549.0	71800360.8	74 .. 79	19939.4	53498.55
25 ..30	5775114.1	66025246.7	75 .. 80	15088.22	38410.33
26 ..31	5353732.1	60671514.6	76 .. 81	11307.42	27102.91
27 ..32	4962310.0	55709204.6	77 .. 82	8288.50	18814.41
28 ..33	4598003.2	51111201.4	78 .. 83	5997.38	12817.03
29 ..34	4256786.2	46854415.2	79 .. 84	4281.43	8535.598
30 ..35	3935995.7	42918419.5	80 .. 85	2995.397	5540.201
31 ..36	3637986.6	39280432.9	81 .. 86	2046.856	3493.345
32 ..37	3361189.8	35919243.1	82 .. 87	1349.023	2144.322
33 ..38	3104739.3	32814503.8	83 .. 88	857.156	1287.166
34 ..39	2867180.9	29947322.9	84 .. 89	535.689	751.477
35 ..40	2645624.8	27301698.1	85 .. 90	333.518	417.959
36 ..41	2438145.7	24863552.4	86 .. 91	191.876	226.083
37 ..42	2244515.6	22619036.8	87 .. 92	104.2829	121.7988
38 ..43	2064379.3	20554657.5	88 .. 93	55.5183	66.2815
39 ..44	1897698.4	18656959.1	89 .. 94	30.2682	36.0133
40 ..45	1742840.6	16914118.5	90 .. 95	16.8016	19.2117
41 ..46	1598775.5	15315343.0	91 .. 96	8.9858	10.2393
42 ..47	1465462.5	13849880.5	92 .. 97	4.73876	5.48716
43 ..48	1342742.4	12507138.1	93 .. 98	2.50349	2.98367
44 ..49	1230871.8	11276266.3	94 .. 99	1.37459	1.60907
45 ..50	1128362.8	10147903.5	95 ..100	.795752	.813327
46 ..51	1034657.6	9113245.9	96 ..101	.447644	.365683
47 ..52	947886.1	8165359.8	97 ..102	.236072	.129611
48 ..53	867778.6	7297581.2	98 ..103	.103931	.025683
49 ..54	794215.4	6503365.8			

TABLE XXXII. 817

:eparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Carlisle 6 per Cent.)

Difference of Age Eight Years.

t.	D.	N.	Ages.	D.	N.
8	41007673.	386134635.1	48 & 56	692095.5	5492905.3
9	32517287.1	353617348.0	49.. 57	631589.3	4861316.0
10	28060644.4	325556703.6	50.. 58	575404.9	4285911.1
11	24642643.4	300914060.2	51.. 59	522587.4	3763323.7
12	22257866.1	278656194.1	52.. 60	472220.6	3291103.1
13	20292898.0	258363296.1	53.. 61	424027.0	2867076.1
14	18705995.7	239657300.4	54.. 62	379481.8	2487594.3
15	17334108.4	222323192.0	55.. 63	338787.1	2148807.2
16	16108752.2	206214439.8	56.. 64	301876.3	1846930.9
17	14995682.9	191218756.9	57.. 65	268266.7	1578664.2
18	13977652.1	177241104.8	58.. 66	237612.1	1341052.1
19	13035870.3	164205234.5	59.. 67	209439.6	1131612.5
0	12152901.1	152052333.4	60.. 68	183475.5	948137.0
1	11327129.0	140725204.4	61.. 69	159522.8	788614.2
2	10556758.8	130168445.6	62.. 70	137981.7	650632.5
3	9834911.4	120333534.2	63.. 71	118830.6	531801.9
4	9155836.0	111177698.2	64.. 72	101471.5	430330.4
5	8518779.5	102658918.7	65.. 73	85658.1	344672.3
6	7922642.8	94736275.9	66.. 74	71436.2	273236.1
7	7367465.9	87368810.0	67.. 75	58709.8	214526.3
8	6848095.6	80520714.4	68.. 76	47872.3	166654.0
9	6359051.1	74161663.3	69.. 77	38630.4	128023.6
0	5898887.7	68262775.6	70.. 78	30931.1	97092.5
1	5470237.2	62792538.4	71.. 79	24661.8	72430.70
2	5071955.4	57720583.0	72.. 80	19303.92	53126.78
3	4702794.2	53017788.8	73.. 81	14904.88	38221.90
4	4359881.6	48657907.2	74.. 82	11228.22	26993.68
5	4041337.0	44616570.2	75.. 83	8281.60	18712.08
6	3744162.3	40872407.9	76.. 84	6000.34	12711.74
7	3464554.7	37407853.2	77.. 85	4271.51	8440.23
8	3201195.0	34206658.2	78.. 86	2966.35	5473.88
9	2956102.3	31250555.9	79.. 87	2011.44	3462.441
0	2727529.6	28523026.3	80.. 88	1311.188	2151.253
1	2513950.1	26009076.2	81.. 89	847.583	1303.670
2	2315471.5	23693604.7	82.. 90	543.373	760.297
3	2131151.6	21562453.1	83.. 91	325.718	434.5793
4	1960881.1	19601572.0	84.. 92	186.3705	248.2088
5	1803262.0	17798290.0	85.. 93	106.4899	141.7189
6	1657823.9	16140466.1	86.. 94	61.3726	80.3463
7	1523606.4	14616859.7	87.. 95	35.0231	45.3232
8	1399552.0	13217307.7	88.. 96	19.8542	25.4690
9	1285001.5	11932306.2	89.. 97	11.4361	14.0329
0	1179207.2	10753099.0	90.. 98	6.5832	7.4497
1	1081758.1	9671340.9	91.. 99	3.6083	3.841378
2	991272.3	8680068.6	92..100	1.989380	1.851998
3	907319.0	7772749.6	93..101	1.050991	.801007
4	829668.4	6943081.2	94..102	.524604	.276403
5	758080.4	6185000.8	95..103	.222710	.053693

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	38431967.	361487041.2	48 & 57	640514.8	4970036.3
1..10	30520775.3	330966265.9	49.. 58	583387.6	4386648.7
2..11	26353467.5	304612798.4	50.. 59	529694.9	3856953.8
3..12	23135712.8	281477085.6	51.. 60	479067.5	3377886.3
4..13	20892996.8	260584088.8	52.. 61	430572.1	2947314.2
5..14	19045034.7	241539054.1	53.. 62	385710.4	2561603.8
6..15	17549667.6	223989386.5	54.. 63	344609.7	2216994.1
7..16	16251700.0	207737686.5	55.. 64	307385.4	1909.08.7
8..17	15094992.2	192642694.3	56.. 65	273462.7	1635146.0
9..18	14049055.0	178593639.3	57.. 66	242683.5	1393462.5
10..19	13094854.4	165498984.9	58.. 67	214635.1	1178827.4
11..20	12211766.7	153287218.2	59.. 68	188814.0	990013.4
12..21	11384049.4	141903168.8	60.. 69	165050.1	821963.3
13..22	10611750.6	131291418.2	61.. 70	143102.6	681860.7
14..23	9889549.8	121401868.4	62.. 71	123448.5	558412.2
15..24	9212868.0	112189000.4	63.. 72	105507.0	452905.2
16..25	8576311.1	103612689.3	64.. 73	89205.9	363699.3
17..26	7977803.7	95634885.6	65.. 74	74496.9	289202.4
18..27	7419120.9	88215764.7	66.. 75	61315.8	227886.6
19..28	6896448.4	81319316.3	67.. 76	50096.1	177790.5
20..29	6404270.1	74915046.2	68.. 77	40512.1	137278.4
21..30	5940145.5	68974900.7	69.. 78	32528.5	104749.9
22..31	5508766.4	63466134.3	70.. 79	26004.8	78745.00
23..32	5107932.7	58358201.6	71.. 80	20510.99	56234.09
24..33	4736391.3	53621810.3	72.. 81	15994.57	42239.52
25..34	4392005.3	49229805.0	73.. 82	12179.65	30059.87
26..35	4071334.7	45158470.3	74.. 83	9102.87	20957.60
27..36	3773474.7	41384995.6	75.. 84	6634.03	14323.47
28..37	3494958.3	37890039.3	76.. 85	4761.83	9561.64
29..38	3232968.5	34657070.8	77.. 86	3323.39	6238.25
30..39	2986272.0	31670798.8	78.. 87	2257.05	3981.20
31..40	2755653.6	28915145.2	79.. 88	1487.29	2493.912
32..41	2539677.8	26375467.4	80.. 89	965.051	1528.861
33..42	2338981.0	24036486.4	81.. 90	627.314	901.547
34..43	2153011.6	21883474.8	82.. 91	379.047	522.5002
35..44	1981203.0	19902271.8	83.. 92	219.4874	303.0128
36..45	1822513.3	18079758.5	84.. 93	126.5914	176.4214
37..46	1676017.2	16403741.3	85.. 94	74.4164	102.0050
38..47	1540812.2	14862929.1	86.. 95	43.4240	58.5810
39..48	1416374.1	13446555.0	87.. 96	25.3311	33.2499
40..49	1301933.1	12144621.9	88.. 97	14.6586	18.5013
41..50	1195677.9	10948944.0	89.. 98	8.3914	10.1993
42..51	1097532.5	9851411.5	90.. 99	4.8798	5.32005
43..52	1005941.0	8845470.5	91..100	2.78514	2.534905
44..53	920946.9	7924523.6	92..101	1.459710	1.075195
45..54	842139.1	7082384.5	93..102	.708215	.366980
46..55	769481.3	6312903.2	94..103	.296946	.070034
47..56	702352.1	5610551.1			

TABLE XXXII. 819

ynstory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Ten Years.

	D.	N.	Ages.	D.	N.
0	26072303.	338342847.9	47 & 57	650007.0	5075119.8
1	23668927.1	309678520.8	48.. 58	591632.0	4463487.8
2	24741917.7	284936703.1	49.. 59	537043.5	3946444.3
3	21717013.5	263219589.6	50.. 60	485569.2	3460861.1
4	19608226.1	243611457.5	51.. 61	436815.2	3024046.9
5	17867748.8	225743708.7	52.. 62	391064.0	2632381.9
6	16453798.8	209289909.9	53.. 63	350265.6	2282116.1
7	15228944.0	194060965.9	54.. 64	312668.3	1969447.8
8	14142095.0	179918870.9	55.. 65	278453.4	1690994.4
9	13161546.5	166757324.4	56.. 66	247383.9	1443610.5
0	12266834.5	154490489.9	57.. 67	219216.1	1224394.4
1	11439190.9	143051299.0	58.. 68	193497.8	1030896.6
2	10665076.0	132386323.0	59.. 69	169858.5	861044.1
3	9941065.9	122445157.1	60.. 70	148861.1	712183.0
4	9264080.6	113181106.5	61.. 71	128030.1	584952.9
5	8629733.3	104551373.2	62.. 72	109067.0	475245.0
6	8031691.8	96519691.4	63.. 73	92753.7	382591.9
7	7470776.0	89049915.4	64.. 74	77562.5	305007.2
8	6944601.0	82104114.4	65.. 75	63913.1	241066.2
9	6449489.0	75664625.4	66.. 76	52319.7	188746.5
	5982385.7	69672239.7	67.. 77	42393.9	146352.6
	5547295.6	64124944.1	68.. 78	34113.0	112239.6
	5143910.1	58981034.0	69.. 79	27347.9	84891.72
	4769988.4	54211045.6	70.. 80	21627.27	64261.75
	4423382.2	49787861.4	71.. 81	16994.71	46269.01
	4101332.5	45686530.9	72.. 82	13070.10	34199.04
	3801484.4	41884846.5	73.. 83	9873.68	23325.28
	3522317.6	38362528.9	74.. 84	7291.49	16033.77
	3261337.9	35101191.0	75.. 85	5264.73	10759.04
	3015912.4	32085278.6	76.. 86	3704.88	7054.16
	2783777.6	29301601.0	77.. 87	2518.72	4535.44
	2565864.7	26735636.3	78.. 88	1665.91	2866.53
	2362917.9	24372718.4	79.. 89	1094.67	1771.857
	2174871.6	22197846.8	80.. 90	714.254	1057.603
	2001524.9	20196321.9	81.. 91	437.404	619.9985
	1841401.2	18354920.7	82.. 92	255.4927	364.5738
	1693691.4	16661029.3	83.. 93	149.0859	215.4899
	1557721.5	15103307.8	84.. 94	86.4536	127.0363
	1432369.1	13670938.7	85.. 95	52.6531	74.3732
	1317581.9	12353356.8	86.. 96	31.4072	42.9600
	1211432.5	11141924.3	87.. 97	18.7023	24.2567
	1112862.4	10029061.9	88.. 98	10.7557	13.5645
	1020609.6	9008452.3	89.. 99	6.2200	7.8594
	934575.0	8073877.3	90..100	3.76656	3.41744
	854788.1	7219089.2	91..101	2.04359	1.477889
	781047.4	6438041.8	92..102	.963639	.494256
	712915.0	5725126.8	93..103	.098577	.093379

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 11	33877706.	316590427.4	47 & 58	600399.7	4577054.4
1..12	26911089.6	289679337.8	48.. 59	544633.0	4032421.4
2..13	23224724.7	266454613.1	49.. 60	492319.8	3540101.6
3..14	20381577.7	246073035.4	50.. 61	442756.2	3097345.4
4..15	18396131.5	227676903.9	51.. 62	397343.0	2700002.4
5..16	16752017.7	210924886.2	52.. 63	355672.3	2344330.1
6..17	15418324.3	195506561.9	53.. 64	317800.2	2026529.9
7..18	14267591.0	181238970.9	54.. 65	283239.0	1743290.9
8..19	13248709.1	167990261.8	55.. 66	251898.6	1491392.3
9..20	12329497.9	155660763.9	56.. 67	223462.0	1267930.3
10..21	11490774.9	144169989.0	57.. 68	197627.7	1070302.6
11..22	10716734.9	133453254.1	58.. 69	174066.0	896236.6
12..23	9991021.1	123462233.0	59.. 70	152369.2	743867.4
13..24	9312308.6	114149924.4	60.. 71	132466.2	611401.2
14..25	8677676.3	105472248.1	61.. 72	113675.3	497725.9
15..26	8081711.6	97390536.5	62.. 73	96358.3	401367.6
16..27	7521230.0	89869306.5	63.. 74	80667.9	320699.7
17..28	6993153.7	82876152.8	64.. 75	66591.5	254108.2
18..29	6494708.0	76381444.8	65.. 76	54561.5	199546.7
19..30	6024625.9	70356818.9	66.. 77	44275.7	155271.0
20..31	5596742.3	64770076.6	67.. 78	35697.7	119573.3
21..32	5179887.5	59590189.1	68.. 79	28680.0	90893.33
22..33	4803585.6	54786603.5	69.. 80	22744.95	68148.38
23..34	4454759.0	50331844.5	70.. 81	17920.19	50228.19
24..35	4130632.8	46201211.7	71.. 82	13887.36	36340.83
25..36	3829493.9	42371717.8	72.. 83	10595.55	25745.28
26..37	3548462.9	38823254.9	73.. 84	7909.35	17835.93
27..38	3286870.3	35536384.6	74.. 85	5786.48	12049.45
28..39	3042377.0	32494007.6	75.. 86	4096.16	7953.29
29..40	2811408.1	29682599.5	76.. 87	2818.99	5134.30
30..41	2592051.6	27090547.9	77.. 88	1869.78	3264.52
31..42	2387282.3	24703265.6	78.. 89	1228.35	2036.17
32..43	2197129.1	22506136.5	79.. 90	810.18	1225.993
33..44	2021846.8	20484289.7	80.. 91	498.251	727.7421
34..45	1860289.2	18624000.5	81.. 92	294.8811	432.8610
35..46	1711446.3	16912554.2	82.. 93	173.4948	259.3662
36..47	1574334.0	15338220.2	83.. 94	104.1831	155.1831
37..48	1448088.1	13890132.1	84.. 95	62.5921	92.5910
38..49	1332461.1	12557671.0	85.. 96	38.0826	54.5084
39..50	1225993.6	11331677.4	86.. 97	23.1683	31.3201
40..51	1127525.8	10204151.6	87.. 98	13.7229	17.5972
41..52	1034865.1	9169286.5	88.. 99	7.9725	9.62468
42..53	948203.0	8221083.5	89..100	4.80104	4.82364
43..54	867437.1	7353646.4	90..101	2.76371	2.05993
44..55	792778.8	6560867.6	91..102	1.37709	.682836
45..56	723630.9	5837233.7	92..103	.556774	.126063
46..57	659782.6	5177454.1			

TABLE XXXII. 281

paratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twelve Years.

	D.	N.	Ages.	D.	N.
2	31806039.	296154154.1	46 & 58	████▓▓.▓	4668156.4
3	25260881.3	270893272.8	47.. 59	552704.3	4115462.1
4	21796575.8	249096607.0	48.. 60	499277.2	3616174.9
5	19121671.9	229975025.1	49.. 61	448898.6	3167276.3
6	17247406.2	212727618.9	50.. 62	402747.1	2764529.2
7	15697775.6	197029843.3	51.. 63	360829.5	2403699.7
8	14445016.2	182584827.1	52.. 64	322705.6	██████.1
9	13366277.1	169210550.0	53.. 65	██████.█	1793106.2
0	12411150.2	156807329.8	54.. 66	256227.8	1536878.4
1	11549473.8	145257926.0	55.. 67	227540.2	███████.█
2	10765061.1	134492864.9	56.. 68	201455.4	███████.█
3	10039415.1	124453449.8	57.. 69	177781.1	930101.7
4	9359104.0	115094345.8	58.. 70	156149.0	███████.7
5	8722879.5	106371466.3	59.. 71	██████.█	637632.2
6	8126609.7	98244856.6	60.. 72	117513.9	520018.3
7	7568080.0	90676776.6	61.. 73	99934.5	███████.█
8	7040382.0	83635394.6	62.. 74	83803.0	336280.6
9	6539926.9	77095467.7	63.. 75	69239.9	267050.9
0	6066866.0	71029601.7	64.. 76	56821.2	210229.7
1	5626188.9	65403412.8	65.. 77	46172.8	██████.█
8	5216721.5	60155491.4	66.. 78	37282.1	124776.██
9	████████.█	55349506.7	67.. 79	30012.█	96762.46
0	████████.█	50863372.8	68.. 80	23852.90	72909.56
5	4159933.0	46703239.█	69.. 81	18845.69	54063.87
6	3856852.1	42846587.7	70.. 82	14643.64	█████.0█
7	████████.█	39271979.6	71.. 83	11258.07	28152.1█
8	3311268.0	35960711.6	72.. 84	8497.59	19674.█7
9	3066195.3	32894516.3	73.. 85	6276.81	13397.76
0	2936078.2	████████.█	74.. 86	4502.11	8895.65
1	2617779.2	27400656.█	75.. 87	3116.70	5778.95
9	2411646.7	25029012.2	76.. 88	2084.42	3694.53
0	2219784.0	22809228.2	77.. 89	1376.1█	2318.15
4	2042538.2	20766690.0	78.. 90	909.12	1409.23
5	1879177.0	18887513.0	79.. 91	565.1█	844.0678
6	1729001.2	17158511.8	80.. 92	335.7489	508.3189
7	1590649.8	15567862.0	81.. 93	200.2968	308.02█1
8	1463531.4	14104330.6	82.. 94	121.2403	186.7█1█
9	1347083.8	12737746.█	83.. 95	73.7143	113.067█
0	1239838.5	11517408.3	84.. 96	45.2710	67.7905
1	1141078.4	10372339.█	85.. 97	26.116█	39.0799
8	10█████.█	9327829.1	86.. 98	17.0145	22.6654
0	961447.3	8200301.█	87.. 99	10.1719	12.49349
0	860086.1	7486295.7	88..100	6.15381	6.53068
5	804510.3	6681785.4	89..101	3.52276	2.81692
6	734499.8	5947285.6	90..102	1.86234	.95458
7	669699.9	5277585.7	91..103	.77949	.175086

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 13	29855669.	276956841.4	46 & 59	561016.5	4196318.0
1..14	23707523.8	253249317.6	47..60	506676.4	3689641.6
2..15	20449200.8	232800116.8	48..61	455242.4	3234399.2
3..16	17927641.2	214872475.6	49..62	408334.5	2826064.7
4..17	15161988.2	198710487.4	50..63	365736.9	2460327.8
5..18	14705826.8	184003660.6	51..64	327384.7	2132943.1
6..19	13532494.2	170471166.4	52..	292331.6	1840611.5
7..20	12521285.9	157949880.5	53..66	260433.5	1580178.0
8..21	11625960.4	146323920.1	54..67	231450.7	1348727.3
9..22	10820052.8	135503867.3	55..68	205131.9	1143595.4
10..23	10084686.9	125419180.4	56..69	181224.4	962371.0
11..24	9404437.2	116014743.2	57..70	159481.6	802889.4
12..25	8766713.2	107248030.0	58..71	139702.1	663187.3
13..26	8168942.6	99079087.4	59..72	121035.1	542152.2
14..27	7610124.9	91468962.5	60..73	103397.1	436755.1
15..28	7084236.8	84384725.7	61..74	86913.2	351841.0
16..29	6584094.4	77800631.3	62..75	71930.7	279911.2
17..30	6108106.2	71691525.1	63..76	59081.1	220830.1
18..31	5665635.5	66025889.6	64..77	48068.3	172744.0
19..32	5253555.5	60772334.1	65..78	38879.6	133865.2
20..33	4871579.6	55900754.5	66..79	31344.3	102520.93
21..34	4517512.6	51383241.9	67..80	24960.87	77560.06
22..35	4189233.2	47194008.7	68..81	19763.70	57796.36
23..36	3884210.2	43309798.5	69..82	15399.91	42396.45
24..37	3600145.5	39709653.0	70..83	11871.16	30525.29
25..38	3333665.5	36373987.5	71..84	9018.31	21506.96
26..39	3068954.8	33285032.7	72..85	6735.71	14771.27
27..40	2858281.3	30426751.4	73..86	4863.59	9687.68
28..41	2640750.3	27786001.1	74..87	3425.59	6462.09
29..42	2435583.4	25350417.7	75..88	2304.35	4157.54
30..43	2242439.0	23107979.7	76..89	1534.16	2623.38
31..44	2063599.1	21044379.6	77..90	1018.53	1604.85
32..45	1898408.4	19145971.2	78..91	634.18	970.674
33..46	1746556.1	17399415.1	79..92	380.843	589.8305
34..47	1606965.7	15792449.4	80..93	228.0560	361.7745
35..48	1478698.9	14313750.5	81..94	139.9697	221.8048
36..49	1361450.0	12952300.5	82..95	85.7831	136.0217
37..50	1253444.8	11698855.7	83..96	53.3155	82.7062
38..51	1153964.4	10544891.3	84..97	33.4240	49.2822
39..52	1061103.4	9483787.9	85..98	20.6306	28.6516
40..53	974115.5	8509672.4	86..99	12.6117	
41..54	892378.9	7617293.6	87..100	7.85141	8.18849
42..55	816241.6	6801051.9	88..101	4.51537	3.67312
43..56	745368.8	6055683.1	89..102	2.37384	1.29929
44..57	679758.9	5375924.2	90..103	1.05416	.24612
45..58	618589.7	4757334.5			

TABLE XXXII. 623

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fourteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 14	28019766.	258924510.3	45 & 59	569449.2	4275465.5
1..15	22242021.8	236682488.5	46.. 60	514296.4	3761169.1
2..16	19172274.0	217510214.5	47.. 61	461989.0	3299180.1
3..17	16799414.4	200710800.1	48.. 62	414105.1	2885075.0
4..18	15141735.2	185569064.9	49.. 63	370810.9	2514264.1
5..19	13777765.5	171791299.4	50.. 64	331837.3	2182426.8
6..20	12676994.9	159114304.5	51.. 65	296570.3	1885856.5
7..21	11729128.3	147385176.2	52.. 66	264453.3	1621403.2
8..22	10891708.9	136493467.3	53.. 67	235249.7	1386153.5
9..23	10136203.1	126357264.2	54.. 68	208657.5	1177496.0
10..24	9446845.6	116910418.6	55.. 69	184531.7	992964.3
11..25	8809176.9	108101241.7	56.. 70	162570.5	830393.8
12..26	8209992.5	99891249.2	57.. 71	142683.8	687710.0
13..27	7649767.2	92241482.0	58.. 72	124038.7	563671.3
14..28	7123593.7	85117888.3	59.. 73	106405.7	457265.6
15..29	6625107.0	78492781.3	60.. 74	89924.6	367341.0
16..30	6150364.1	72342417.2	61.. 75	74600.3	292740.7
17..31	5705082.0	66637335.2	62.. 76	61377.1	231363.6
18..32	5290389.5	61346945.7	63.. 77	49997.5	181366.1
19..33	4905976.7	56440969.0	64.. 78	40490.0	140876.1
20..34	4549636.5	51891332.5	65.. 79	32687.4	108188.71
21..35	4218533.4	47672799.1	66.. 80	26068.86	82119.85
22..36	3911568.5	43761230.6	67.. 81	20681.73	61438.12
23..37	3625682.8	40135547.8	68.. 82	16150.07	45288.05
24..38	3359495.9	36776051.9	69.. 83	12484.25	32803.80
25..39	3111714.4	33664337.5	70.. 84	9509.43	23294.37
26..40	2879497.7	30784839.8	71.. 85	7156.90	16137.47
27..41	2661424.2	28123415.6	72.. 86	5240.65	10896.82
28..42	2456955.8	25666459.8	73.. 87	3715.86	7180.96
29..43	2264696.4	23401763.4	74.. 88	2532.94	4648.02
30..44	2084660.1	21317103.3	75.. 89	1696.17	2951.85
31..45	1917983.2	19599120.1	76.. 90	1135.46	1816.39
32..46	1764430.2	17634689.9	77.. 91	710.51	1105.876
33..47	1623281.5	16011408.4	78.. 92	427.348	678.528
34..48	1492866.6	14518541.8	79.. 93	258.686	419.8418
35..49	1375559.7	13142982.1	80.. 94	159.3683	260.4735
36..50	1266812.3	11876169.8	81.. 95	99.0350	161.4385
37..51	1166628.3	10709541.5	82.. 96	62.0445	99.3940
38..52	1073086.3	9636455.2	83.. 97	39.3632	60.0308
39..53	985824.1	8650631.1	84.. 98	24.5249	35.5059
40..54	904137.2	7746493.9	85.. 99	15.2923	20.21356
41..55	827642.6	6918851.3	86..100	9.73470	10.47886
42..56	756237.9	6162613.4	87..101	5.76098	4.71788
43..57	689817.7	5472795.7	88..102	3.04270	1.67518
44..58	627881.0	4844914.7	89..103	1.34368	.33150

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 15	26287699.	241994852.2	45 & 60	522026.8	3831201.4
1..16	20853144.3	221141707.9	46.. 61	468936.9	3362264.5
2..17	17965719.6	203175988.3	47.. 62	420242.0	2942022.5
3..18	15738922.8	187437065.5	48.. 63	376051.3	2565971.2
4..19	14185199.8	173251865.7	49.. 64	336441.0	2229530.2
5..20	12906760.7	160345105.0	50.. 65	300603.8	1928926.4
6..21	11874986.4	148470118.6	51.. 66	268287.8	1660638.6
7..22	10988361.1	137481757.5	52.. 67	238880.9	1421757.7
8..23	10203330.3	127278427.2	53.. 68	212082.2	1209675.5
9..24	9495103.5	117783323.7	54.. 69	187703.1	1021972.4
10..25	8848901.1	108934422.6	55.. 70	165537.3	856435.1
11..26	8249759.6	100684663.0	56.. 71	145447.5	710987.6
12..27	7688208.2	92996454.8	57.. 72	126686.0	584301.6
13..28	7160701.5	85835753.3	58.. 73	109045.3	475256.3
14..29	6661913.1	79173840.2	59.. 74	92541.1	382715.2
15..30	6188674.9	72985165.3	60.. 75	77185.1	305530.1
16..31	5743611.4	67241553.9	61.. 76	63655.2	241874.9
17..32	5327223.4	61914330.5	62.. 77	51940.7	189934.2
18..33	4940373.7	56973956.8	63.. 78	42100.2	147834.0
19..34	4531760.5	52392196.3	64.. 79	34041.3	113792.65
20..35	4248531.3	48143665.0	65.. 80	27185.84	86606.81
21..36	3938926.7	44204738.3	66.. 81	21599.75	65007.06
22..37	3651220.0	40553518.3	67.. 82	16900.26	48106.80
23..38	3383326.1	37170192.2	68.. 83	13092.39	35014.41
24..39	3133944.8	34036247.4	69.. 84	10000.55	25013.86
25..40	2900713.9	31135533.5	70.. 85	7546.64	17467.22
26..41	2681179.3	28454354.2	71.. 86	5568.33	11898.89
27..42	2476190.9	25978163.3	72.. 87	3987.52	7911.37
28..43	2284569.1	23693594.2	73.. 88	2747.58	5163.79
29..44	2105351.3	21588242.9	74.. 89	1864.27	3299.52
30..45	1937557.9	19650685.0	75.. 90	1255.38	2044.14
31..46	1782623.5	17868061.5	76.. 91	792.07	1252.066
32..47	1639894.1	16228167.4	77.. 92	478.785	773.281
33..48	1509034.0	14719133.4	78.. 93	290.275	483.006
34..49	1389669.2	13329464.2	79.. 94	180.773	302.2329
35..50	1279941.1	12049523.1	80.. 95	112.7605	189.4724
36..51	1179069.9	10870453.2	81.. 96	71.6292	117.8432
37..52	1084862.6	9785590.6	82.. 97	45.8080	72.0352
38..53	996956.9	8788633.7	83.. 98	28.8829	43.1523
39..54	915004.6	7873629.1	84.. 99	18.1789	24.97339
40..55	838547.9	7035031.2	85..100	11.80366	13.16973
41..56	766800.7	6268280.5	86..101	7.14284	6.02689
42..57	699376.8	5568403.7	87..102	3.88207	2.14482
43..58	637172.2	4931231.5	88..103	1.72229	.42253
44..59	578002.3	4353228.2			

TABLE XXXII.

826

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Sixteen Years.

	D.	N.	Ages.	D.	N.
6	24646194.	226210293.6	45 & 61	475985.6	3424068.2
7	19540809.1	206669484.5	46.. 62	426562.1	2997496.1
8	16831603.1	189837881.4	47.. 63	381624.1	2615872.0
9	14744661.8	175093219.6	48.. 64	341195.6	2274676.4
0	13286437.8	161804781.8	49.. 65	304774.2	1969902.2
1	12090216.1	149714565.7	50.. 66	271936.7	1697965.5
2	11125007.5	138589558.2	51.. 67	242344.5	1455621.0
3	10293873.9	128295684.3	52.. 68	215355.8	1240265.2
4	9557985.0	118637699.3	53.. 69	190784.0	1049481.2
5	8894104.4	109743594.9	54.. 70	168382.4	881098.8
6	8286961.2	101456633.7	55.. 71	148101.9	732996.9
7	7725448.0	93731185.7	56.. 72	129139.8	603857.1
8	7196685.0	86534500.7	57.. 73	111372.6	492484.5
9	6696616.1	79837884.6	58.. 74	94836.9	397647.6
0	6223056.4	73614828.2	59.. 75	79430.9	318216.7
1	5779388.6	67835439.6	60.. 76	65860.6	252356.1
2	5363200.9	62472238.7	61.. 77	53868.4	198487.7
3	4974770.8	57497467.9	62.. 78	43736.4	154751.3
4	4613884.3	52883583.6	63.. 79	35395.1	119356.19
5	4278529.1	48605054.5	64.. 80	28311.82	91044.37
6	3966936.3	44638118.2	65.. 81	22525.25	68519.12
7	3676757.2	40961361.0	66.. 82	17650.42	50868.70
8	3407156.4	37554204.6	67.. 83	13700.54	37168.16
9	3156175.1	34398029.5	68.. 84	10487.70	26680.46
0	2921436.8	31476592.7	69.. 85	7936.39	18744.07
1	2700934.4	28775658.3	70.. 86	5871.57	12872.50
2	2494571.0	26281087.3	71.. 87	4236.86	8635.64
3	2302454.6	23978632.7	72.. 88	2948.46	5687.18
4	2123825.9	21854806.8	73.. 89	2022.25	3664.93
5	1956789.2	19898017.6	74.. 90	1379.79	2285.14
5	1800816.8	18097200.8	75.. 91	875.72	1409.420
7	1656803.4	16440397.4	76.. 92	533.746	875.674
8	1524477.6	14915919.8	77.. 93	325.213	550.461
9	1403778.9	13512140.9	78.. 94	202.848	347.613
0	1293070.0	12219070.9	79.. 95	127.906	219.7067
1	1191289.4	11027781.5	80.. 96	81.5563	138.1504
2	1096432.2	9931349.3	81.. 97	52.8845	85.2659
3	1007897.7	8923451.6	82.. 98	33.6117	51.6542
4	925337.6	7998114.0	83.. 99	21.4092	30.24495
5	848626.9	7149487.1	84..100	14.03177	16.21318
5	776904.3	6372582.8	85..101	8.66094	7.55224
7	709652.4	5662930.4	86..102	4.81325	2.73899
8	646463.5	5016466.9	87..103	2.19739	.54160
9	586555.4	4429911.5			
0	529867.7	3900043.8			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Seventeen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 17	23095153.	211216731.1	45 & 62	432973.8	3051867.3
1..18	18307262.3	192909468.8	46.. 63	387363.4	2664503.9
2..19	15768315.2	177141153.6	47.. 64	346252.0	2318251.9
3..20	13812531.8	163328621.8	48.. 65	309081.2	2009170.7
4..21	12447746.4	150880875.4	49.. 66	275709.3	1733461.4
5..22	11326644.0	139554231.4	50.. 67	245640.5	1487820.9
6..23	10421883.8	129132347.6	51.. 68	218478.3	1269342.6
7..24	9642801.8	119489345.8	52.. 69	193728.8	1075613.8
8..25	8953005.8	110536540.0	53.. 70	171146.0	904467.8
9..26	8329293.9	102207246.1	54.. 71	150647.3	753820.5
10..27	7760285.2	94446960.9	55.. 72	131496.5	622324.0
11..28	7231544.0	87215416.9	56.. 73	113529.8	508794.2
12..29	6730267.4	80485149.5	57.. 74	96860.9	411933.8
13..30	6255473.3	74229676.2	58.. 75	81401.5	330531.8
14..31	5811496.3	68418179.9	59.. 76	67776.9	262754.9
15..32	5396608.5	63021571.4	60.. 77	55734.9	207020.0
16..33	5008367.8	58013203.6	61.. 78	45359.6	161660.4
17..34	4646008.1	53367195.5	62.. 79	36770.7	124889.71
18..35	4308526.9	49058668.6	63.. 80	29437.81	95451.90
19..36	3994945.9	45063722.7	64.. 81	23458.20	71993.70
20..37	3702902.5	41360820.2	65.. 82	18406.70	53587.00
21..38	3430986.6	37929833.6	66.. 83	14308.68	39278.32
22..39	3178405.4	34751428.2	67.. 84	10974.86	28303.46
23..40	2942159.7	31809268.5	68.. 85	8322.98	19980.48
24..41	2720230.0	29089038.5	69.. 86	6174.81	13805.67
25..42	2512951.2	26576087.3	70.. 87	4467.59	9338.08
26..43	2319545.1	24256542.2	71.. 88	3132.88	6205.26
27..44	2140452.9	22116089.3	72.. 89	2170.09	4035.17
28..45	1973960.1	20142129.2	73.. 90	1496.70	2538.47
29..46	1816690.8	18323438.4	74.. 91	962.51	1575.961
30..47	1673712.5	16649725.9	75.. 92	590.114	985.847
31..48	1540196.5	15109529.4	76.. 93	362.545	623.302
32..49	1418145.0	13691384.4	77.. 94	227.262	396.040
33..50	1306198.8	12385185.6	78.. 95	143.524	252.516
34..51	1203508.8	11181676.8	79.. 96	92.511	160.0049
35..52	1107795.3	10073881.5	80.. 97	60.2138	99.7911
36..53	1018646.6	9055234·9	81.. 98	38.8041	60.9870
37..54	935492.5	8119742.4	82.. 99	24.9144	36.07264
38..55	858210.3	7261532.1	83..100	16.52512	19.54752
39..56	786242.5	6475289.6	84..101	10.29582	9.25170
40..57	719003.1	5756286.5	85..102	5.83622	3.41548
41..58	655493.1	5100793.4	86..103	2.72448	.69100
42..59	595108.8	4505684.6			
43..60	537708.6	3967976.0			
44..61	483134.9	3484341.1			

TABLE XXXII. 287

...tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Eighteen Years.

D.	N.	Ages.	D.	N.
21637232.	197255751.3	45 & 63	393186.1	2712204.9
17150754.0	180104997.3	46 .. 64	351459.3	2360745.6
14771471.6	165333526.7	47 .. 65	313661.6	2047084.0
12938683.5	152394842.2	48 .. 66	279605.6	1767478.4
11661594.0	140733248.2	49 .. 67	249048.4	1518430.0
10610776.5	130122471.7	50 .. 68	221449.7	1296980.3
9762715.4	120359756.3	51 .. 69	196537.8	1100442.5
9033454.1	111327302.2	52 .. 70	173787.7	926554.8
8384454.9	102942847.8	53 .. 71	153119.9	773534.9
7799927.4	95142919.9	54 .. 72	133756.3	639778.4
7264153.9	87878766.0	55 .. 73	115601.6	524176.8
6768867.1	81115898.9	56 .. 74	98737.0	425439.8
6286907.8	74826991.1	57 .. 75	83138.7	349301.1
5841769.3	68987221.8	58 .. 76	69458.3	272842.8
5426589.6	63560632.2	59 .. 77	57356.5	215486.3
5039565.2	58521087.0	60 .. 78	46931.2	168555.1
4677385.0	53843682.0	61 .. 79	38135.3	130419.84
4338524.7	49505157.3	62 .. 80	30581.81	99838.03
4022955.4	45482201.9	63 .. 81	24391.16	75446.87
3729047.9	41753154.0	64 .. 82	19169.08	56277.79
3455384.2	38297769.8	65 .. 83	14921.77	41356.02
3200635.6	35097134.2	66 .. 84	11462.01	29894.01
2962882.7	32134251.5	67 .. 85	8709.59	21184.42
2739525.7	29394725.8	68 .. 86	6475.60	14708.82
2530903.9	26863821.9	69 .. 87	4698.31	10010.51
2336635.7	24527186.2	70 .. 88	3303.43	6707.08
2156341.0	22370845.2	71 .. 89	2305.79	4401.29
1989413.8	20381431.4	72 .. 90	1606.14	2795.15
1834649.9	18546781.5	73 .. 91	1044.06	1751.067
1690325.0	16856456.5	74 .. 92	648.597	1102.490
1555915.5	15300541.0	75 .. 93	400.883	701.657
1432767.7	13867773.3	76 .. 94	253.350	448.307
1319566.3	12548207.0	77 .. 95	160.799	287.508
1215728.2	11332478.8	78 .. 96	103.808	163.700
1119158.3	10213320.5	79 .. 97	68.300	115.3995
1029203.5	9184117.0	80 .. 98	44.1821	71.2174
945469.1	8238647.9	81 .. 99	28.7632	42.46417
867628.5	7371019.4	82 .. 100	19.23068	23.22349
795121.4	6575898.0	83 .. 101	12.12593	11.09816
727645.2	5848252.8	84 .. 102	6.93789	4.16027
664130.1	5184122.7	85 .. 103	3.30353	.85574
603421.0	4580701.7			
545549.5	4035152.2			
490284.2	3544868.0			
439477.0	3105391.0			

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 19	20270363.	184169434.6	45 & 64	356742.2	2402463.2
1..20	16066515.0	168102919.6	46.. 65	318378.9	2084084.3
2..21	13836956.2	154265963.4	47.. ▮	283749.3	1800335.0
3..22	12121525.4	142144438.0	48.. 67	252567.9	1547767.1
4..23	10924557.0	131219881.0	49.. 68	224522.1	1323245.0
5..24	9939660.9	121260220.1	50.. 69	199210.8	1124034.2
6..25	9144777.7	112135442.4	51.. 70	176307.7	947726.5
7..26	8458657.9	103676384.5	52.. 71	155483.4	792243.1
8..27	7851582.7	95825001.8	53.. 72	135951.9	656291.2
9..28	7301261.8	88523740.0	54.. 73	117588.4	538703.8
10..29	6793363.7	81730376.3	55.. 74	100538.9	438163.9
11..30	6317360.0	75413016.3	56.. 75	84749.1	▮▮▮▮▮.
12..31	5871124.9	69541891.4	57.. 76	70940.8	282474.0
13..32	5454857.6	64087033.8	58.. 77	58779.4	223694.6
14..33	5067562.8	59019471.0	59.. 78	48296.8	175397.8
15..34	4706520.5	54312950.4	60.. 79	39456.7	135941.12
16..35	4367825.0	49945125.4	61.. 80	31716.82	104224.39
17..36	4050964.9	45894160.5	62.. 81	25339.04	78885.26
18..37	3765193.1	42138967.4	63.. 82	19931.43	58953.63
19..38	3479782.0	38659185.4	64.. 83	15539.81	43414.09
20..39	3223395.3	35435790.1	65.. 84	11953.14	31460.68
21..40	2983605.6	32452184.5	66.. 85	9096.20	22364.68
22..41	2758521.4	29693363.1	67.. ▮	6776.39	15588.29
23..42	2548856.6	27144506.5	68.. 87	4927.18	10661.11
24..43	2353328.8	24791177.7	69.. 88	3474.04	7187.07
25..44	2172228.9	22618948.8	70.. ▮	2431.36	4755.71
26..45	2004180.8	20614768.0	71.. 90	1706.57	▮▮▮▮.▮▮
27..46	1849013.0	18765755.0	72.. 91	1120.41	1928.733
28..47	1705157.6	17060597.4	73.. 92	703.557	1225.176
29..48	1571358.9	15489238.5	74.. 93	440.556	784.620
30..49	1447390.4	14041848.1	75.. 94	280.106	504.514
31..50	1333172.5	12708675.6	76.. 95	179.258	325.256
32..51	1228170.0	11480505.6	77.. 96	116.301	208.955
33..52	1130521.4	10349984.2	78.. 97	76.641	132.314
34..53	1039760.4	9310223.8	79.. 98	50.116	82.198
35..54	955267.6	8354956.2	80.. 99	32.7495	49.44869
36..55	876881.4	7478074.8	81..100	22.20149	27.24719
37..56	803847.2	6674227.6	82..101	14.11053	13.13666
38..57	735862.4	5938365.2	83..102	8.17071	4.96595
39..58	672112.8	5266252.4	84..103	3.02711	1.03684
40..59	611371.9	4654880.5			
41..60	553169.6	4101710.9			
42..61	497433.6	3604277.3			
43..62	445980.3	3158297.0			
44..63	399091.6	2759205.4			

TABLE XXXII. 829

)aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty Years.

a.	D.	N.	Ages.	D.	N.
20	18988908.	171903476.3	45 & 65	323164.5	2120441.5
21	15050069.0	156853407.3	46.. 66	288016.6	1832424.9
22	12963066.6	143890340.7	47.. 67	256310.8	1576114.1
23	11355420.0	132534920.7	48.. 68	227695.0	1348419.1
24	10233595.3	122301325.4	49.. 69	201974.5	1146444.6
25	9310523.2	112990802.2	50.. 70	178705.6	967739.0
26	8564048.5	104426753.7	51.. 71	157737.8	810001.2
27	7921257.0	96505496.7	52.. 72	138050.4	671950.8
28	7349614.6	89155882.1	53.. 73	119518.5	552432.3
29	6828066.6	82327815.5	54.. 74	102266.8	450165.5
30	6345847.6	75981967.9	55.. 75	86295.7	363869.8
31	5899563.2	70082404.7	56.. 76	72314.8	291555.0
32	5482268.9	64600135.8	57.. 77	60033.9	231521.1
33	5093960.5	59506175.3	58.. 78	49494.9	182026.2
34	4732667.9	54773507.4	59.. 79	40604.8	141421.37
35	4395032.3	50378475.1	60.. 80	32815.76	108605.61
36	4078323.1	46300152.0	61.. 81	26279.46	82326.15
37	3781338.4	42518813.6	62.. 82	20706.01	61620.14
38	3504179.5	39014634.1	63.. 83	16157.83	45462.31
39	3246154.9	35768479.2	64.. 84	12448.21	33014.10
40	3004821.9	32763657.3	65.. 85	9485.94	23528.16
41	2778117.0	29985540.3	66.. 86	7077.18	16450.98
42	2566809.4	27418730.9	67.. 87	5156.05	11294.93
43	2370021.8	25048709.1	68.. 88	3643.25	7651.68
44	2187747.7	22860961.4	69.. 89	2556.92	5094.76
45	2018947.6	20842013.8	70.. 90	1799.50	3295.26
46	1862737.8	18979276.0	71.. 91	1190.48	2104.776
47	1718507.0	17260769.0	72.. 92	754.995	1349.781
48	1585147.6	15675621.4	73.. 93	477.888	871.893
49	1461736.4	14213865.0	74.. 94	307.866	564.027
50	1346778.7	12867086.3	75.. 95	198.189	365.838
51	1240833.9	11626252.4	76.. 96	129.652	236.186
52	1142091.1	10484161.3	77.. 97	85.865	150.321
53	1050317.3	9433844.0	78.. 98	56.236	94.085
54	965066.2	8468777.8	79.. 99	37.148	56.93706
55	885969.2	7582808.6	80..100	25.27839	31.65867
56	812420.0	6770388.6	81..101	16.29035	15.36832
57	743933.0	6026450.6	82..102	9.50845	5.85987
58	679702.8	5346747.8	83..103	4.62493	1.23494
59	618720.4	4728027.4			
60	560458.4	4167569.0			
61	504381.6	3663187.4			
62	452483.7	3210703.7			
63	404997.3	2805706.4			
64	362100.4	2443606.0			

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 21	17787577.	160406939.0	42 & 63	410903.0	2851813.5
1..22	14099563.7	146307375.3	43.. 64	367458.6	2484354.9
2..23	12143773.9	134163601.4	44.. 65	328018.4	2156336.5
3..24	10637206.6	123526394.8	45.. 66	292345.8	1863990.7
4..25	9585852.8	113940542.0	46.. ▮	260165.5	1603825.2
5..26	8719268.6	105221273.4	47.. 68	231069.2	1372756.0
6..27	8019762.1	97201511.3	▮. ▮	204828.9	1167927.1
7..28	7414634.5	89786676.8	49.. 70	181184.8	986742.2
8..29	6873285.5	82913391.3	50.. 71	159883.0	826859.3
9..30	6378264.4	76535126.9	51.. 72	140052.1	686807.2
10..31	5926166.7	70608960.2	52.. 73	121353.2	565454.0
11..32	5508823.6	65100136.6	53.. 74	103945.3	461496.7
12..33	5119558.3	59980578.3	54.. 75	87778.8	373719.9
13..34	4757321.1	55223257.2	55.. 76	73634.5	300065.4
14..35	4419449.1	50803808.1	56.. 77	61196.6	238888.8
15..36	4103727.2	46700080.9	57.. 78	50551.2	188337.04
16..37	3806875.7	42893205.2	58.. 79	41612.0	146725.84
17..38	3828577.1	39384628.1	59.. 80	33770.59	112955.05
18..39	3268914.4	36095713.7	60.. ▮	27190.02	85765.03
19..40	3026038.3	33069675.4	61.. 82	21474.50	64290.53
20..41	2797872.1	30271803.3	62.. 83	16785.76	47504.77
21..42	2584762.1	27687041.2	63.. ▮	12943.29	34561.48
22..43	2386715.0	25300326.2	64.. 85	9878.83	24682.65
23..44	2203266.1	23097060.1	65.. 86	7380.41	17302.24
24..45	2033371.2	21063688.9	66.. 87	5384.92	11917.32
25..46	1876462.5	19187226.4	67.. 89	3812.50	8104.82
26..47	1731263.0	17455963.4	68.. 89	2681.47	6423.35
27..48	1597557.4	15858406.0	69.. 90	1892.44	3530.91
28..49	1474883.4	14383822.6	70.. 91	1255.30	2275.605
29..50	1360146.2	13023676.4	71.. 92	802.204	1473.402
30..51	1253497.6	11770178.8	72.. 93	512.826	960.576
31..52	1153467.4	10616411.4	73.. 94	333.954	626.622
32..53	1061066.2	9555215.2	74.. 95	217.830	408.792
33..54	974864.7	8580380.5	75.. 96	143.344	265.448
34..55	895056.8	7685323.7	76.. 97	95.723	169.725
35..56	820439.6	6864484.1	77.. 98	63.004	106.721
36..57	751871.7	6112612.4	78.. 99	41.685	65.0365
37..58	647462.1	5425450.3	79..100	28.6736	36.36193
38..59	623707.4	4799742.9	80..101	18.54805	17.81387
39..60	567194.9	4212549.0	81..102	10.97734	▮▮▮
40..61	511027.6	3721520.4	82..103	5.38215	1.45430
41..62	453803.9	3262716.5			

Difference of Age Twenty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 22	16664181.	149629437.8	5 & 27	8165117.4	97939148.5
1..23	13208442.1	136420995.7	6.. 28	7507042.0	90432106.9
2..24	11375698.4	125045297.3	7.. 29	6934278.6	83497828.2
3..25	9963917.4	115081379.9	8.. 30	6420504.7	77077323.5
4..26	8977113.7	106104266.2	9.. 31	5956439.7	71120883.8

TABLE XXXII.   831

tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Two Years—*continued*.

D.	N.	Ages.	D.	N.
533665.2	65587218.6	46 & 68	234544.4	1396572.7
144356.1	60442862.5	47.. 69	207964.5	1148708.3
791227.3	55661635.2	48.. 70	183745.2	1004963.0
442470.8	51219164.4	49.. 71	16.101.3	842861.7
128525.7	47092638.7	50.. 72	141956.9	700904.8
830588.9	43111043.4	51.. 73	123123.0	577781.8
552407.4	39709642.4	52.. 74	105549.9	472232.0
291674.0	36417968.4	53.. 75	89219.6	383012.4
047254.5	33370713.9	54.. 76	74900.0	308112.4
817627.3	30553086.0	55.. 77	62313.4	245799.0
603142.3	27949944.3	56.. 78	51530.4	194268.6
403406.1	25546536.2	57.. 79	42500.1	151.68.45
218784.8	23327751.4	58.. 80	34608.33	117160.12
047794.7	21279956.7	59.. 81	27981.16	89178.96
869868.2	19390088.5	60.. 82	22218.56	60960.40
744019.0	17646069.5	61.. 83	17408.74	49551.66
609415.7	16036853.8	62.. 84	13446.29	36105.37
486127.7	14550526.1	63.. 85	10271.72	25833.65
372081.5	13178444.6	64.. 86	7686.11	18147.54
265939.4	11912505.2	65.. 87	5615.65	12531.69
165643.6	10746861.6	66.. 88	3981.71	8550.18
072006.9	9674854.7	67.. 69	2806.04	5744.14
984841.4	8690013.3	68.. 90	1984.69	3759.63
904144.6	7785868.7	69.. 91	1320.14	2439.381
829259.2	6956609.5	70.. 92	845.890	1593.491
759663.8	6196945.7	71.. 93	544.893	1044.598
894401.3	5502455.4	72.. 94	358.370	690.218
632574.3	48 9681.1	73.. 95	208.200	453 940
573500.1	4296281.0	74.. 96	157.550	296.390
517169.9	3779111.1	75.. 97	165.832	190.558
464849.3	3314261.8	76.. 98	70·238	120.320
416642.4	2897619.4	77.. 99	46.701	73.6191
372817.1	2524802.3	78..100	32.1750	41.4441
332872.3	2191930.0	79..101	21.0393	20.40479
296736.8	1895193.2	80..102	12.49570	7.90609
264076.1	1631117.1	81..103	6.21359	1.69250

Difference of Age Twenty-Three Years.

D.	N.	Ages.	D.	N.
18610971.	139536050.9	10 & 33	5167554.2	60891144.5
12373028.0	127153022.9	11.. 34	4804386.3	56088758.2
10655665.8	116497357.1	12.. 35	4464794.7	51623963.5
9331169.6	107166187.5	13.. 36	4148021.3	47475942.2
8406575.1	98759612.4	14.. 37	3851869.9	43624072.3
7643104.4	91116508.0	15.. 38	3574535.5	40049536.8
7020510.2	84095997.8	16.. 39	3313901.4	36735632.4
6477479.7	77618518.1	17.. 40	3068470.8	33667161.6
5995886.3	71622631.8	18.. 41	2837382.3	30829779.3
5561933.1	66060698.7	19.. 42	2621522.4	28208256.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Three Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
20 & 43	2420498.6	25787758.3	51 & 74	107080.2	482402.5
21..44	2234303.4	23553454.9	52.. 75	90596.7	391805.8
22..45	2062218.4	21491236.5	53.. 76	76129.4	315676.4
23..46	1903273.7	19587962.8	54.. 77	63384.4	252292.0
24..47	1756478.5	17831484.3	55.. 78	52470.7	199821.3
25..48	1621273.9	16210210.4	56.. 79	43323.4	156497.92
26..49	1497158.8	14713051.6	57.. 80	35346.99	121150.93
27..50	1382823.3	13330228.3	58.. 81	28675.28	92475.65
28..51	1277048.0	12053180.3	59.. 82	22865.05	69610.60
29..52	1177213.3	10875967.0	60.. 83	18011.93	51593.67
30..53	1082947.7	9793019.3	61.. 84	13945.33	37653.34
31..54	994996.3	8798023.0	62.. 85	10670.91	26982.43
32..55	913397.5	7884625.5	63.. 86	7991.77	18990.66
33..56	837678.9	7046946.6	64.. 87	5848.24	13142.42
34..57	767456.1	6279490.5	65.. 88	4152.32	8990.10
35..58	701687.8	5577802.7	66.. 89	2930.58	6059.52
36..59	639320.3	4938482.4	67.. 90	2076.81	3982.71
37..60	579894.9	4358587.5	68.. 91	1384.43	2398.263
38..61	523010.2	3835577.3	69.. 92	889.577	1708.706
39..62	470436.6	3365140.7	70.. 93	574.566	1134.140
40..63	422132.3	2943008.4	71.. 94	380.778	753.362
41..64	378024.4	2564984.0	72.. 95	253.563	499.799
42..65	337726.3	2227257.7	73.. 96	170.900	328.899
43..66	301127.9	1926129.8	74.. 97	116.319	212.580
44..67	268042.6	1658087.2	75.. 98	77.655	134.925
45..68	233069.9	1420017.3	76.. 99	52.063	82.8621
46..69	210950.5	1209066.8	77..100	36.0476	46.8145
47..70	186468.3	1022598.5	78..101	23.6084	23.2061
48..71	164392.0	858206.5	79..102	14.1774	9.02869
49..72	143926.2	714280.3	80..103	7.07474	1.95395
50..73	124797.6	589482.7			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 24	14623600.	130054652.9	15 & 39	3334546.8	37048730.0
1..25	11589868.7	118464784.2	16.. 40	3089193.8	33959535.2
2..26	9978989.3	108485794.9	17.. 41	2857137.4	31102398.8
3..27	8738129.1	99747665.8	18.. 42	2639902.6	28462496.2
4..28	7869125.2	91878540.6	19.. 43	2437589.2	26024907.0
5..29	7147754.2	84730786.4	20.. 44	2250191.4	23774715.6
6..30	6558030.6	78172755.8	21.. 45	2076641.8	21698073.8
7..31	6049093.3	72123662.5	22.. 46	1916679.4	19781394.4
8..32	5598767.1	66524895.4	23.. 47	1768937.9	18012456.5
9..33	5193951.8	61330943.6	24.. 48	1632856.5	16379600.0
10..34	4826051.3	56504892.3	25.. 49	1508190.0	14871410.0
11..35	4486421.0	52018471.3	26.. 50	1393087.7	13478322.3
12..36	4168865.7	47849605.6	27.. 51	1287045.7	12191276.6
13..37	3871934.9	43977670.7	28.. 52	1187543.3	11003733.3
14..38	3594393.9	40383276.8	29.. 53	1093696.5	9910036.8

TABLE XXXII. 833

tory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Four Years—*continued.*

D.	N.	Ages.	D.	N.
.005151.0	8904885.8	55 & 79	44114.0	160917.4
922815.8	7932070.0	56.. 80	36031.60	124885.8
846251.6	7135818.4	57.. 81	29287.30	95593.50
775248.2	6360570.2	58.. 82	23432.27	72166.23
708885.2	5651685.0	59.. 83	18536.03	53630.20
645946.0	5005739.0	60.. 84	14428.52	39201.68
586079.2	4419659.8	61.. 85	11066.93	28134.75
528749.9	3890909.9	62.. 86	8302.36	19832.39
475749.1	3415160.8	63.. 87	6080.62	13751.57
427206.1	2987954.7	64.. 88	4324.31	9427.26
383005.4	2604949.3	65.. 89	3056.17	6371.09
342443.6	2262505.7	66.. 90	2168.99	4202.10
305519.0	1956986.7	67.. 91	1418.74	2753.357
272008.9	1684977.8	68.. 92	932.909	1820.448
241645.7	1443332.1	69.. 93	604.241	1216.207
214161.9	1229170.2	70.. 94	401.514	814.693
189272.7	1039897.5	71.. 95	269.417	545.276
166828.2	873069.3	72.. 96	183.395	361.881
145960.3	727109.0	73.. 97	126.177	235.704
126528.9	600580.1	74.. 98	85.350	150.354
108536.7	492043.4	75.. 99	57.560	92.7936
91910.3	400133.1	76..100	40.1855	52.6081
77304.4	322828.7	77..101	26.4498	26.1583
64424.7	258404.0	78..102	15.9086	10.2497
53372.6	206031.4	79..103	8.0249	2.22475

Difference of Age Twenty-Five Years.

D.	N.	Ages.	D.	N.
13697989.	121175225.4	20 & 45	2091408.7	21900646.9
10853866.6	110321358.8	21.. 46	1930085.0	19970561.9
9344776.8	100976582.0	22.. 47	1781397.3	18189164.6
8179482.3	92797099.7	23.. 48	1644438.9	16544725.7
7359126.7	85437973.0	24.. 49	1518964.7	15025761.0
6676892.5	78761080.5	25.. 50	1403352.0	13622409.0
6124317.2	72636763.3	26.. 51	1296599.1	12325809.9
5648450.2	66988313.1	27.. 52	1196840.4	11128969.5
5228348.9	61759964.2	28.. 53	1103293.7	10025675.8
4850704.4	56909259.8	29.. 54	1015127.7	9010548.1
4506652.2	52402607.6	30.. 55	932233.9	8078314.2
4189058.7	48213548.9	31.. 56	854977.4	7223336.8
3891391.9	44322157.0	32.. 57	783182.0	6440154.8
3613117.7	40709039.3	33.. 58	716082.7	5724072.1
3353072.1	37355967.2	34.. 59	652571.7	5071500.4
3108436.5	34247530.7	35.. 60	592153.2	4479347.2
2876433.0	31371097.7	36.. 61	534388.7	3944958.5
2658282.8	28712814.9	37.. 62	480970.2	3463988.3
2454679.7	26258135.2	38.. 63	432030.5	3031957.8
2266079.6	23992055.6	39.. 64	387609.1	2644348.7

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Three Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 & 43	2420498.6	25787758.3	51 & 74	107080.2	482402.5
21..44	2234303.4	23553454.9	52.. 75	90596.7	391805.8
22..45	2062218.4	21491236.5	53.. 76	76129.4	315676.4
23..46	1903273.7	19587962.8	54.. 77	63384.4	252292.0
24..47	1756478.5	17831484.3	55.. 78	52470.7	199821.3
25..48	1621273.9	16210210.4	56.. 79	43323.4	156497.92
26..49	1497158.8	14713051.6	57.. 80	35346.99	121150.93
27..50	1382823.3	13330228.3	58.. 81	28675.28	92475.65
28..51	1277048.0	12053180.3	59.. 82	22865.05	69610.60
29..52	1177213.3	10875967.0	60.. 83	18011.93	51593.67
30..53	1082947.7	9793019.3	61.. 84	13945.33	37653.34
31..54	994996.3	8798023.0	62.. 85	10670.91	26982.43
32..55	913397.5	7884625.5	63.. 66	7991.77	18990.66
33..56	837678.9	7046946.6	64.. 87	5848.24	13142.42
34..57	767456.1	6279490.5	65.. 88	4152.32	8990.10
35..58	701687.8	5577802.7	66.. 89	2930.58	6059.52
36..59	639320.3	4938482.4	67.. 90	2076.81	3982.71
37..60	579894.9	4358587.5	68.. 91	1384.43	2598.283
38..61	523010.2	3835577.3	69.. 92	889.577	1708.706
39..62	470436.6	3365140.7	70.. 93	574.566	1134.140
40..63	422132.3	2943008.4	71.. 94	380.778	753.362
41..64	378024.4	2564984.0	72.. 95	253.563	499.799
42..65	337726.3	2227257.7	73.. 96	170.900	328.899
43..66	301127.9	1926129.8	74.. 97	116.319	212.580
44..67	268042.6	1658087.2	75.. 98	77.655	134.925
45..68	238069.9	1420017.3	76.. 99	52.063	82.8621
46..69	210950.5	1209066.8	77..100	36.0476	46.8145
47..70	186468.3	1022598.5	78..101	23.6084	23.2061
48..71	164392.0	858206.5	79..102	14.1774	9.02869
49..72	143926.2	714280.3	80..103	7.07474	1.95395
50..73	124797.6	589482.7			

Difference of Age Twenty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 24	14623600.	130054652.9	15 & 39	3334546.8	37048730.0
1..25	11589868.7	118464784.2	16.. 40	3089193.8	33959536.2
2..26	9978989.3	108485794.9	17.. 41	2857137.4	31102398.8
3..27	8738129.1	99747665.8	18.. 42	2639902.6	28462496.2
4..28	7869125.2	91878540.6	19.. 43	2437589.2	26024907.0
5..29	7147754.2	84730786.4	20.. 44	2250191.4	23774715.6
6..30	6558030.6	78172755.8	21.. 45	2076641.8	21698073.8
7..31	6049093.3	72123662.5	22.. 46	1916679.4	19781394.4
8..32	5593767.1	66524895.4	23.. 47	1768937.9	18012456.5
9..33	5193951.8	61330943.6	24.. 48	1632856.5	16379600.0
10..34	4826051.3	56504892.3	25.. 49	1508190.0	14871410.0
11..35	4486421.0	52018471.3	26.. 50	1393087.7	13478322.3
12..36	4168865.7	47849605.6	27.. 51	1287045.7	12191276.6
13..37	3871934.9	43977670.7	28.. 52	1187543.3	11003733.3
14..38	3594393.9	40383276.8	29.. 53	1093696.5	9910036.8

TABLE XXXII. 833

ratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Four Years—*continued.*

D.	N.	Ages.	D.	N.
1005151.0	8904885.8	55 & 79	44114.0	160917.4
922815.8	7932070.0	56.. 80	36031.60	124885.8
846251.6	7135818.4	57.. 81	29287.30	95593.50
775248.2	6360570.2	58.. 82	23432.27	72166.23
708885.2	5651685.0	59.. 83	18536.03	53630.20
645946.0	5005739.0	60.. 84	14428.52	39201.68
586079.2	4419659.8	61.. 85	11066.93	28134.75
528749.9	3890909.9	62.. 86	8302.36	19832.39
475749.1	3415160.8	63.. 87	6080.62	13751.57
427206.1	2987954.7	64.. 88	4324.31	9427.26
383005.4	2604949.3	65.. 89	3056.17	6371.09
342443.6	2262505.7	66.. 90	2168.99	4202.10
305519.0	1956986.7	67.. 91	1448.74	2753.357
272008.9	1684977.8	68.. 92	932.909	1820.448
241645.7	1443332.1	69.. 93	604.241	1216.207
214161.9	1229170.2	70.. 94	401.514	814.693
189272.7	1039897.5	71.. 95	269.417	545.276
166828.2	873069.3	72.. 96	183.395	361.881
145960.3	727109.0	73.. 97	126.177	235.704
126528.9	600580.1	74.. 98	85.350	150.354
108536.7	492043.4	75.. 99	57.560	92.7936
91910.3	400133.1	76..100	40.1855	52.6081
77304.4	322828.7	77..101	26.4498	26.1583
64424.7	258404.0	78..102	15.9086	10.2497
53372.6	205031.4	79..103	8.0249	2.22475

Difference of Age Twenty-Five Years.

D.	N.	Ages.	D.	N.
13697989.	121175225.4	20 & 45	2091408.7	21900646.9
10853866.6	110321358.8	21.. 46	1930085.0	19970561.9
9344776.8	100976582.0	22.. 47	1781397.3	18189164.6
8179482.3	92797099.7	23.. 48	1644438.9	16544725.7
7359126.7	85437973.0	24.. 49	1518964.7	15025761.0
6676892.5	78761080.5	25.. 50	1403352.0	13622409.0
6124317.2	72636763.3	26.. 51	1296599.1	12325809.9
5648450.2	66988313.1	27.. 52	1196840.4	11128969.5
5228348.9	61759964.2	28.. 53	1103293.7	10025675.8
4850704.4	56909259.8	29.. 54	1015127.7	9010548.1
4506652.2	52402607.6	30.. 55	932233.9	8078314.2
4189058.7	48213548.9	31.. 56	854977.4	7223336.8
3891391.9	44322157.0	32.. 57	783182.0	6440154.8
3613117.7	40709039.3	33.. 58	716082.7	5724072.1
3353072.1	37355967.2	34.. 59	652571.7	5071500.4
3108436.5	34247530.7	35.. 60	592153.2	4479347.2
2876433.0	31371097.7	36.. 61	534388.7	3944958.5
2658282.8	28712814.9	37.. 62	480970.2	3463988.3
2454679.7	26258135.2	38.. 63	432030.5	3031957.8
2266079.6	23992055.6	39.. 64	387609.1	2644348.7

3 H

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Five Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
40 & 65	346955.8	2297392.9	60 & 85	11450.39	29287.25
41.. 66	309786.5	1987606.4	61.. 86	8610.49	20676.76
42.. 67	275975.5	1711630.9	62.. 87	6317.14	14359.62
43.. 68	245221.4	1466499.5	63.. 88	4496.28	9863.34
44.. 69	217378.6	1249120.9	64.. 89	3182.74	6680.60
45.. 70	192117.6	1057003.3	65.. 90	2261.92	4418.68
46.. 71	169337.2	887666.1	66.. 91	1513.05	2905.633
47.. 72	148123.3	739542.8	67.. 92	976.244	1929.369
48.. 73	128317.0	611225.8	68.. 93	633.674	1295.715
49.. 74	110042.3	501183.5	69.. 94	422.249	873.466
50.. 75	93160.4	408023.1	70.. 95	284.089	589.377
51.. 76	78425.4	329597.7	71.. 96	194.862	394.515
52.. 77	65419.0	264178.7	72.. 97	135.401	259.114
53.. 78	54248.6	209930.1	73.. 98	92.583	166.531
54.. 79	44872.2	165057.91	74.. 99	63.264	103.2673
55.. 80	36689.17	128368.74	75..100	44.4294	58.8379
56.. 81	29854.55	98514.19	76..101	29.4861	29.3518
57.. 82	23932.37	74581.82	77..102	17.8234	11.5284
58.. 83	18995.84	55585.98	78..103	9.0049	2.5235
59.. 84	14848.34	40737.64			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 26	12828113.	112852511.0	25 & 51	1306152.4	12456982.2
1.. 27	10164051.4	102688459.6	26.. 52	1205724.2	11251258.0
2.. 28	8747345.7	93941113.9	27.. 53	1111931.2	10139326.8
3.. 29	7649369.5	86291744.4	28.. 54	1024035.4	9115291.4
4.. 30	6874340.7	79417403.7	29.. 55	941486.8	8173804.6
5.. 31	6235318.0	73182085.7	30.. 56	863703.4	7310101.2
6.. 32	5718691.7	67463394.0	31.. 57	791257.5	6518843.7
7.. 33	5274744.8	62188649.2	32.. 58	723411.1	5795432.6
8.. 34	4882828.4	57305820.8	33.. 59	659197.4	5136235.2
9.. 35	4529673.8	52776147.0	34.. 60	598227.1	4538008.1
10.. 36	4207948.8	48568198.2	35.. 61	539927.0	3998031.1
11.. 37	3910240.8	44657957.4	36.. 62	486099.5	3511981.6
12.. 38	3631274.1	41026683.3	37.. 63	436771.7	3075209.9
13.. 39	3370538.7	37656144.6	38.. 64	391986.2	2683223.7
14.. 40	3125705.6	34530439.0	39.. 65	351126.2	2332097.5
15.. 41	2894350.5	31636088.5	40.. 66	313868.3	2018229.2
16.. 42	2676235.4	28959853.1	41.. 67	279830.1	1738399.1
17.. 43	2471770.2	26488082.9	42.. 68	248797.4	1489601.7
18.. 44	2281967.5	24206115.4	43.. 69	220595.4	1269006.3
19.. 45	2106175.8	22099939.6	44.. 70	195003.2	1074003.1
20.. 46	1943809.7	20156129.9	45.. 71	171882.5	902120.6
21.. 47	1793856.7	18362273.2	46.. 72	150350.9	751769.7
22.. 48	1656021.6	16706251.6	47.. 73	130218.7	621551.0
23.. 49	1529739.3	15176512.3	48.. 74	111597.5	509953.5
24.. 50	1413377.7	13763134.6	49.. 75	94452.8	415500.7

TABLE XXXII.

finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

e of Age Twenty-Six Years—*continued.*

N.	Ages.	D.	N.
336008.8	64 & 90	2355.62	4633.69
269641.2	65.. 91	1577.88	3055.810
214555.3	66.. 92	1019.577	2036.233
168946.61	67.. 93	663.108	1373.125
131626.88	68.. 94	442.820	930.305
101227.49	69.. 95	298.762	631.543
76831.59	70.. 96	205.474	426.069
57430.32	71.. 97	143.869	282.200
42213.64	72.. 98	99.351	182.849
30430.08	73.. 99	68.626	114.2227
21521.24	74..100	48.8326	65.3901
14969.65	75..101	32.6001	32.7900
10298.63	76..102	19.8695	12.9205
6989.31	77..103	10.0888	2.8317

rence of Age Twenty-Seven Years.

N.	Ages.	D.	N.
105050578.8	30 & 57	799332.9	6596627.5
95536336.3	31.. 58	730870.2	5865757.3
87355906.6	32.. 59	665943.6	5199813.7
80210442.8	33.. 60	604301.1	4595512.6
73790734.7	34.. 61	545465.2	4050047.4
67968393.8	35.. 62	491137.3	3558910.1
62628054.6	36.. 63	441429.7	3117480.4
57701896.5	37.. 64	396288.1	2721192.3
53142224.9	38.. 65	355091.3	2366101.0
48912780.4	39.. 66	317640.9	2048460.1
44984906.7	40.. 67	283517.4	1764942.7
41336043.6	41.. 68	252272.5	1512670.2
37948567.5	42.. 69	223812.1	1288858.1
34806579.7	43.. 70	197888.9	1090969.2
31896149.5	44.. 71	174464.2	916505.0
29203243.7	45.. 72	152610.9	763894.1
26714780.3	46.. 73	132177.0	631717.1
24416924.8	47.. 74	113251.3	518465.8
22295982.2	48.. 75	95787.6	422678.2
20338447.7	49.. 76	80594.8	342083.4
18531835.0	50.. 77	67270.2	274813.2
16864231.1	51.. 78	55884.7	218928.5
15323717.2	52.. 79	46312.7	172615.77
13900313.9	53.. 80	37932.27	134683.50
12584830.1	54.. 81	30921.85	103761.65
11370222.0	55.. 82	24841.11	78920.54
10250037.2	56.. 83	19777.04	59143.50
9217984.7	57.. 84	15541.45	43602.05
8268236.4	58.. 85	12075.88	31526.17
7395960.4	59.. 86	9168.05	22358.12

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)
Difference of Age Twenty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
60 & 87	6778.60	15579.52	69 & 96	216.086	456.098
61.. 88	4844.39	10735.13	70.. 97	151.703	304.395
62.. 89	3437.92	7297.21	71.. 98	105.564	198.831
63.. 90	2449.29	4847.92	72.. 99	73.642	125.1887
64.. 91	1643.23	3204.693	73..100	52.9705	72.2183
65.. 92	1063.263	2141.430	74..101	35.5310	36.3873
66.. 93	692.542	1448.888	75..102	21.9679	14.4193
67.. 94	463.389	985.499	76..103	11.2468	3.1725
68.. 95	313.315	672.184			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 28	11244820.	97739279.2	38 & 66	321228.0	2078159.3
1.. 29	████████	88841655.4	39.. 67	286925.2	1791234.1
2.. 30	7641540.1	81200115.3	40.. 68	255596.5	1535557.0
3.. 31	6672900.3	74527215.0	41.. 69	226938.2	1308699.4
4.. 32	5994518.4	68532696.6	42.. 70	200774.5	1107924.9
5.. 33	5437130.7	63095565.9	43.. 71	177045.8	932079.1
6.. 34	4987417.6	58108148.3	44.. 72	154903.0	775976.1
7.. 35	4600133.9	53508014.4	45.. 73	134163.8	641812.3
8.. 36	4257454.1	49250560.3	46.. 74	114954.5	519057.8
9.. 37	3947350.0	45302621.7	47.. 75	97207.2	429650.6
10.. 38	3665317.3	41637304.4	48.. 76	81733.9	347916.7
11.. 39	3403884.2	38233420.2	49.. 77	68203.6	279713.1
12.. 40	3157776.7	35075643.5	50.. 78	56544.8	223068.3
13.. 41	2925591.1	32150052.4	51.. 79	46984.1	176084.24
14.. 42	2707866.4	29442186.0	52.. 80	38517.77	137566.47
15.. 43	2503964.0	26938222.0	53.. 81	31429.38	106137.09
16.. 44	2313374.2	24624847.8	54.. 82	25268.05	80869.04
17.. 45	2135709.6	22489138.2	55.. 83	20137.98	60731.06
18.. 46	1971259.3	20517878.9	56.. 84	15842.47	44888.61
19.. 47	1819368.8	18698510.1	57.. 85	12333.61	32555.00
20.. 48	1679462.2	17019047.9	58.. 86	9395.48	23159.53
21.. 49	1551288.4	15467759.5	59.. 87	6975.83	16183.69
22.. 50	1433429.0	14034330.5	60.. 88	5012.23	11171.46
23.. 51	1324815.0	12709515.5	61.. 89	3565.52	7605.94
24.. 52	1223225.3	11486230.2	62.. 90	2544.48	5061.46
25.. 53	1128438.4	10357791.8	63.. 91	1708.58	3352.883
26.. 54	1039713.1	9318078.7	64.. 92	1107.303	2945.540
27.. 55	957163.8	8360894.9	65.. 93	722.217	1523.363
28.. 56	879930.2	7480964.7	66.. 94	483.957	1039.406
29.. 57	807266.8	6673697.9	67.. 95	327.869	711.537
30.. 58	738329.4	5935368.5	68.. 96	225.611	484.926
31.. 59	672810.3	5262558.2	69.. 97	159.539	325.047
32.. 60	610485.4	4652072.8	70.. 98	111.312	214.075
33.. 61	551003.5	4101069.3	71.. 99	78.248	135.8266
34.. 62	496175.1	3604894.2	72..100	56.8432	78.9834
35.. 63	446004.5	3158689.7	73..101	38.1679	40.1163
36.. 64	400514.2	2758375.5	74..102	24.1449	15.9715
37.. 65	358300.7	2399387.3	75..103	12.4346	3.5367

TABLE XXXII. 837

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Twenty-Nine Years.

Ages	D.	N.	Ages	D.	N.
0 & 29	10516043.	90895046.8	38 & 67	290165.3	1917063.5
1.. 30	8311488.5	82383558.3	39.. 68	258668.8	1558394.7
2.. 31	7136168.6	75447389.7	40.. 69	229928.4	1328466.3
3.. 32	6238941.2	69216448.5	41.. 70	203578.9	1124887.4
4.. 33	5597916.9	63618531.6	42.. 71	179627.6	945259.8
5.. 34	5077812.7	58540718.9	43.. 72	157195.2	786064.6
6.. 35	4657339.0	53883579.9	44.. 73	136178.9	651885.7
7.. 36	4295234.4	49588145.5	45.. 74	116682.4	535203.3
8.. 37	3974084.0	45614061.5	46.. 75	98669.1	436534.2
9.. 38	3684040.9	41930020.6	47.. 76	82945.0	353589.2
10.. 39	3419233.7	38510786.9	48.. 77	69167.5	284421.7
11.. 40	3173072.2	35337714.7	49.. 78	57430.5	226991.2
12..	2940292.6	32397422.1	50.. 79	47623.1	179368.11
13.. 42	2721972.0	29675450.1	51.. 80	39076.27	140291.84
14.. 43	2517875.0	27157575.1	52.. 81	31914.51	108377.33
15.. 44	2327784.3	24829790.8	53.. 82	25682.78	82694.55
16.. 45	2150133.1	22679657.7	54.. 83	20484.06	62210.49
17.. 46	1984984.0	20694673.7	55.. 84	16131.59	46078.90
18.. 47	1832124.7	18862549.0	56.. 85	12572.50	33506.40
19.. 48	1691320.5	17171228.5	57.. 86	9596.00	23910.40
20..	1562319.6	15608908.9	58.. 87	7148.89	16761.51
21.. 50	1443454.6	14165454.3	59.. 88	5158.07	11603.44
22.. 51	1334146.3	12831308.0	60.. 89	3689.06	7914.38
23.. 52	1231962.6	11599345.4	61.. 90	2638.92	5275.46
24.. 53	1136500.1	10462845.3	62.. 91	1774.98	3500.478
25.. 54	1047373.8	9415471.5	63..	1151.339	2349.139
26.. 55	964288.7	8451182.8	64..	752.130	
27.. 56	886819.0	7564363.8	65.. 94	504.694	1092.315
28.. 57	814350.6	6750013.2	66..	342.422	749.893
29.. 58	745657.8	6004355.4	67.. 96	237.139	512.754
30.. 59	679676.9	5324678.5	68.. 97	167.309	345.445
31.. 60	616780.3	4707898.2	69.. 98	117.062	228.383
32..	556642.3	4151255.9	70.. 99	82.509	145.8744
33.. 62	501212.9	3650043.0	71..100	60.3976	85.4768
34.. 63	450579.4	3199463.6	72..101	41.7088	43.7680
35.. 64	404665.0	2794798.6	73..102	26.1909	17.5771
36.. 65	362816.6	2431982.0	74..103	13.6669	3.9103
37.. 66	324753.2	2107228.8			

Difference of Age Thirty Years.

Ages	D.	N.	Ages	D.	N.
0 & 30	9823294.	84497148.0	8 & 38	3708438.7	42216951.6
1.. 31	7761810.7	76735337.3	9.. 39	3436700.4	38780251.2
2.. 32	6663526.6	70071810.7	10.. 40	3187380.9	35592870.3
3.. 33	5818698.0	64253112.7	11.. 41	2954534.6	32638335.7
4.. 34	5227973.1	59025139.6	12.. 42	2735650.3	29902685.4
5.. 35	4741751.6	54283388.0	13.. 43	2530991.0	27371694.4
6.. 36	4348648.1	49934739.9	14.. 44	2340716.4	25030978.0
7.. 37	4009349.6	45925390.3	15.. 45	2163526.3	22867451.7

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty Years—continued.

Ages.	D.	N.	Ages.	D.	N.
16 & 46	1998369.6	20869062.1	45 & 75	100152.1	443391.4
17 .. 47	1844860.9	19024181.2	46 .. 76	84192.4	359199.0
18 .. 48	1703176.7	17321002.5	47 .. 77	70192.5	289006.5
19 .. 49	1573350.8	15747651.7	48 .. 78	58242.2	230764.3
20 .. 50	1453719.0	14293932.7	49 .. 79	48283.8	182460.52
21 .. 51	1343477.5	12950455.2	50 .. 80	39607.72	142872.60
22 .. 52	1240639.8	11709815.4	51 .. 81	32377.25	110495.55
23 .. 53	1144561.7	10565253.7	52 .. 82	26079.20	84416.35
24 .. 54	1054856.3	9510397.4	53 .. 83	20520.27	63596.08
25 .. 55	971393.7	8539003.7	54 .. 84	16408.83	47187.25
26 .. 56	893401.7	7645602.0	55 .. 85	12801.95	34385.30
27 .. 57	820726.0	6824876.0	56 .. 86	9761.87	24603.43
28 .. 58	752200.9	6072675.1	57 .. 87	7301.46	17301.97
29 .. 59	686423.0	5386252.1	58 .. 88	5286.02	12015.95
30 .. 60	623075.1	4763177.0	59 .. 89	3796.40	8219.55
31 .. 61	562382.0	4200795.0	60 .. ■	2730.36	5489.19
32 .. 62	506342.2	3694452.8	61 .. 91	1840.86	3648.326
33 .. 63	455154.2	3239298.6	62 .. 92	1196.083	2452.243
34 .. 64	408815.8	2830482.8	63 .. 93	782.043	1670.200
35 .. 65	366576.7	2463906.1	64 .. 94	525.598	1144.602
36 .. 66	328216.6	2135689.5	65 .. 95	357.094	787.508
37 .. 67	293349.8	1842339.7	66 .. ■	247.662	539.846
38 .. 68	261589.8	1580749.9	67 .. 97	175.081	364.765
39 .. ■	232692.1	1348057.8	68 .. 98	122.763	242.002
40 .. 70	206261.2	1141796.6	69 .. 99	86.770	155.2315
41 .. 71	182136.6	959660.0	70 ..100	63.6866	91.5449
42 .. 72	159487.6	800172.4	71 ..101	44.3167	47.2282
43 .. 73	138194.0	661978.4	72 ..102	28.1056	19.1226
44 .. 74	118434.9	543543.5	73 ..103	14.8249	4.2977

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 31	9173633.	78518398.1	15 & 46	2010837.7	21040961.3
1 .. 32	7247730.7	71270667.4	16 .. 47	1857340.3	19103621.0
2 .. 33	6222663.2	65048004.2	17 .. 48	1715036.9	17468584.1
3 .. 34	5434163.5	59613840.7	18 .. 49	1584382.0	15884202.1
4 .. 35	4881974.0	54731866.7	19 .. 50	1463983.4	14420218.7
5 .. 36	4427465.6	50304401.1	20 .. 51	1353030.9	13067187.8
6 .. 37	4059208.1	46245193.0	21 .. 52	1249317.0	11817870.8
7 .. 38	3741347.0	42503846.0	22 .. 53	1152623.4	10665247.4
8 .. 39	3459460.1	39044385.9	23 .. 54	1062339.0	9602908.0
9 .. 40	3203663.1	35840722.8	24 .. 55	978333.3	8624575.3
10 .. 41	2967857.8	32872865.0	25 .. 56	900041.3	7724591.0
11 .. 42	2748901.1	30123963.9	26 .. 57	826818.0	6897773.0
12 .. 43	2543709.5	27580254.4	27 .. 58	758059.8	6139583.2
13 .. 44	2352909.5	25227344.9	28 .. 59	692446.4	5447136.8
14 .. 45	2175515.9	23051799.0	29 .. 60	629259.4	4817977.4

TABLE XXXII. 839

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 5 per Cent.)

Difference of Age Thirty-One Years—*continued.*

Age	D.	N.	Age.	D.	N.
30 & 61	568121.6	4249855.8	52 & 83	21141.64	64903.28
31.. 62	511563.3	▉▉▉▉▉▉	53.. 84	16678.16	48225.12
32.. 63	459812.3	3278480.3	54.. 85	13021.97	35203.15
33.. 64	412966.6	2865313.7	55.. ▉	9960.39	25242.76
34.. 65	370336.8	2495176.9	56.. 87	7442.88	17799.88
35.. 66	331618.1	2163558.8	57.. 88	5398.85	12401.03
36.. 67	296478.1	1867080.7	58.. 89	3890.57	8510.46
37.. 68	264460.7	1602620.0	59.. 90	2809.80	5700.66
38.. 69	235319.8	1367300.2	60.. 91	1904.64	3796.023
39.. 70	208740.3	1158559.7	61.. 92	1240.474	2555.549
40.. 71	184336.5	974023.2	62.. ▉	812.435	1743.114
41.. 72	161715.2	812308.0	63.. 94	546.501	1196.613
42.. 73	140209.3	672099.7	64.. 95	371.885	824.728
43.. 74	120187.5	551911.2	65.. 96	258.276	566.453
44.. 75	101656.3	450254.9	66.. 97	182.851	383.601
45.. 76	85458.1	364796.8	67.. 98	128.466	255.135
46.. 77	71248.1	293548.7	68.. 99	90.995	164.1399
47.. 78	59105.4	234443.3	69..100	66.9757	97.1642
48.. 79	48966.2	185477.07	70..101	46.7302	50.4340
49.. 80	40157.21	145319.86	71..102	29.8631	20.5709
50.. 81	32817.60	112502.26	72..103	15.9090	4.6619
51.. 82	26457.34	▉▉▉▉▉▉			

Difference of Age Thirty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 32	8566045.	72931920.8	22 & 54	1069821.3	9693220.6
1.. 33	6768216.0	66163704.8	23.. 55	985273.1	8707947.5
2.. 34	5811432.2	60352272.6	24.. 56	906413.9	7801533.6
3.. 35	5074518.3	55277754.3	25.. 57	832910.0	▉▉▉▉▉▉
4.. 36	4558394.0	▉▉▉▉▉▉	26.. 58	763716.9	6204906.7
5.. 37	4132779.6	46586580.7	27.. 59	697867.4	5507039.3
6.. 38	3787672.8	42798707.9	28.. 60	634781.1	4872258.2
7.. 39	3490159.1	▉▉▉▉▉▉	29.. 61	573760.5	4298497.7
8.. 40	3224879.5	▉▉▉▉▉▉	30.. 62	516784.1	3781713.6
9.. 41	2983018.7	33100650.6	31.. 63	464553.3	3317160.3
10.. 42	2761297.0	30339353.6	32.. 64	417192.9	2899967.4
11.. 43	2556030.6	27783323.0	33.. 65	374096.9	2525870.5
12.. 44	2364733.2	25418589.8	34.. 66	335019.7	2190850.8
13.. 45	2186878.6	23231711.2	35.. 67	299550.7	1891300.1
14.. 46	2022009.0	21209702.2	36.. 68	▉▉▉▉▉▉	1624019.2
15.. 47	1868909.7	19340792.5	37.. 69	237902.3	1386116.9
16.. 48	1726619.5	17614173.0	38.. 70	211097.8	1175019.1
17.. 49	1595413.1	16018759.9	39.. 71	186754.6	988264.5
18.. 50	1474247.7	14544512.2	40.. 72	163846.0	▉▉▉▉▉▉
19.. 51	1362584.4	13181927.8	41.. 73	142167.6	682250.9
20.. 52	1258200.9	11923726.9	42.. 74	121940.2	560310.7
21.. 53	1160685.0	10763041.9	43.. 75	103160.7	457150.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
44 & 76	86741.5	370408.5	58 & 90	2879.50	5902.34
45.. 77	72319.1	298089.4	59.. 91	1960.05	3942.285
46.. 78	59994.2	238095.2	60.. 92	1283.455	2658.830
47.. 79	49691.8	188403.43	61.. 93	842.587	1816.243
48.. 80	40724.72	147678.71	62.. 94	567.738	1248.505
49.. 81	33272.89	114405.82	63.. 95	386.674	861.831
50.. 82	26817.18	87588.64	64.. 96	268.974	592.857
51.. 83	21448.20	66140.44	65.. 97	190.687	402.170
52.. 84	16935.59	49204.85	66.. 98	134.168	268.002
53.. 85	13235.69	35969.16	67.. 99	95.224	172.7775
54.. 86	10131.58	25837.58	68..100	70.2383	102.5392
55.. 87	7578.71	18258.87	69..101	49.1435	53.3957
56.. 88	5503.41	12755.46	70..102	31.4893	21.9064
57.. 89	3973.62	8781.84	71..103	16.9036	5.0028

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 33	7999310.	67711206.5	30 & 63	469294.5	3355477.3
1.. 34	6320931.9	61390274.6	31.. 64	421494.6	2933982.7
2.. 35	5426818.6	55963456.0	32.. 65	377925.4	2556057.3
3.. 36	4738176.3	51225279.7	33.. 66	338421.2	2217636.1
4.. 37	4254993.7	46970286.0	34.. 67	302623.4	1915012.7
5.. 38	3856526.5	43113759.5	35.. 68	270050.9	1644961.8
6.. 39	3533561.1	39580198.4	36.. 69	240439.4	1404522.4
7.. 40	3253496.8	36326701.6	37.. 70	213414.3	1191108.1
8.. 41	3002773.8	33323927.8	38.. 71	188863.5	1002244.6
9.. 42	2775402.7	30548525.1	39.. 72	165815.4	836429.2
10.. 43	2567556.8	27980968.3	40.. 73	144040.8	692388.4
11.. 44	2376187.4	25604780.9	41.. 74	123643.3	568745.1
12.. 45	2197868.0	23406912.9	42.. 75	104665.1	464080.0
13.. 46	2032541.9	21374371.0	43.. 76	88025.1	376054.9
14.. 47	1879292.6	19495078.4	44.. 77	73405.2	302649.7
15.. 48	1737374.7	17757703.7	45.. 78	60896.0	241753.7
16.. 49	1606187.6	16151516.1	46.. 79	50439.2	191314.51
17.. 50	1484512.1	14667004.0	47.. 80	41328.23	149986.28
18.. 51	1372137.7	13294866.3	48.. 81	33743.10	116243.18
19.. 52	1267084.7	12027781.6	49.. 82	27189.22	89053.96
20.. 53	1168938.6	10858843.0	50.. 83	21739.91	67314.05
21.. 54	1077303.8	9781539.2	51.. 84	17181.15	50132.90
22.. 55	992212.8	8789326.4	52.. 85	13440.00	36692.90
23.. 56	912843.3	7876483.1	53.. 86	10297.86	26395.04
24.. 57	838860.5	7037622.6	54.. 87	7708.96	18686.08
25.. 58	769343.9	6268278.7	55.. 88	5603.85	13082.23
26.. 59	703047.5	5565231.2	56.. 89	4050.58	9031.65
27.. 60	639750.8	4925480.4	57.. 90	2940.96	6090.69
28.. 61	578795.2	4346685.2	58.. 91	2008.68	4082.008
29.. 62	521913.4	3824771.8	59.. 92	1320.800	2761.208

TABLE XXXII. 841

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Carlisle 6 per Cent.)

Difference of Age Thirty-Three Years—*continued.*

Ages	D.	N.	Ages	D.	N.
60 & 93	871.782	1689.426	66 & 99	99.449	181.2938
61.. 94	588.809	1300.617	67..100	73.5009	107.7929
62.. 95	401.703	898.914	68..101	51.5375	56.2554
63.. 96	279.670	619.244	69..102	33.1157	23.1397
64.. 97	198.584	420.660	70..103	17.8241	5.3156
65.. 98	139.917	280.743			

Difference of Age Thirty-Four Years.

Ages	D.	N.	Ages	D.	N.
0 & 34	7470666.	62831418.9	35 & 69	[illegible]	1422531.2
1.. 35	5902598.1	56928820.8	36.. 70	215690.4	1206840.8
2.. 36	5067125.9	51861694.9	37.. 71	[illegible]	1015904.5
3.. 37	4422810.1	[illegible]	.. 72	167687.9	848216.6
4.. 38	3970571.2	43468313.6	.. 73	145772.2	702444.4
5.. 39	[illegible]	39870708.1	40.. 74	125272.5	577171.9
6.. 40	[illegible]	36576752.3	41.. 75	106127.0	471044.9
7.. 41	3029420.2	33547332.1	42.. 76	89308.7	381736.2
8.. 42	2793783.0	30753549.1	43.. 77	74491.4	307244.8
9.. 43	2580672.6	28172876.3	44.. 78	61810.6	245434.2
10.. 44	2386902.6	25785973.7	45.. 79	51197.4	194236.80
11.. 45	[illegible]	23577459.8	46.. 80	41949.77	[illegible]
12.. 46	2042755.7	21534704.1	47.. 81	34243.17	[illegible]
13.. 47	1889062.0	19645622.1	48.. 82	27573.47	90470.39
14.. 48	1747026.8	17898595.3	49.. 83	22041.50	[illegible]
15.. 49	1616193.8	[illegible]	50.. 84	17414.82	61014.07
16.. 50	1494537.8	14787864.7	51.. 85	13634.87	[illegible]
17.. 51	1381691.1	13406173.6	52.. 86	10456.61	[illegible]
18.. 52	1275968.6	12130205.0	53.. 87	7835.49	19086.90
19.. 53	1177182.2	10953022.8	54.. 88	5700.16	[illegible]
20.. 54	1084964.5	[illegible]	55.. 89	[illegible]	[illegible]
21.. 55	999152.4	[illegible]	56.. 90	2997.92	[illegible]
22.. 56	919273.0	[illegible]	57.. 91	2051.56	4212.755
23.. 57	844810.8	7104822.1	58.. 92	1353.565	2859.190
24.. 58	774940.3	6329981.8	59.. 93	897.148	1962.042
25.. 59	708227.5	5621754.3	60.. 94	609.212	1352.830
26.. 60	644499.5	4977254.8	61.. 95	476.610	[illegible]
27.. 61	583326.6	4393928.2	62.. 96	290.539	845.011
28.. 62	526493.2	3867435.0	63.. 97	206.483	439.198
29.. 63	473952.5	3393482.5	64.. 98	145.712	[illegible]
30.. 64	425796.4	[illegible]	65.. 99	103.712	[illegible]
31.. 65	381822.2	[illegible]	66..100	76.7635	113.0101
32.. 66	341884.5	2243979.4	67..101	53.9315	[illegible]
33.. 67	[illegible]	1938283.4	68..102	34.7288	24.3498
34.. 68	[illegible]	1665462.5	69..103	18.7447	5.5051

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 35	6976242.	58270494.9	35 & 70	217925.7	1222229.6
1.. 36	5511370.7	52759124.2	36.. 71	192972.4	1029257.2
2.. 37	4729865.2	46029259.0	37.. 72	169528.2	859729.0
3.. 38	4127170.0	43902089.0	38.. 73	147418.3	712310.7
4.. 39	3703993.4	40198095.6	39.. 74	126778.2	585532.5
5.. 40	3353657.5	36844438.1	40.. 75	107525.4	478007.1
6.. 41	3067092.6	33777345.5	41.. 76	90556.1	387451.0
7.. 42	2818574.8	30958770.7	42.. 77	75577.8	311873.2
8.. 43	2597763.3	28361007.4	43.. 78	62725.2	249148.0
9.. 44	2399095.6	25961911.8	44.. 79	51966.3	197181.68
10.. 45	2218473.0	23743438.8	45.. 80	42580.34	154601.34
11.. 46	2052650.3	21690788.5	46.. 81	34758.15	119843.19
12.. 47	1898574.9	19792213.6	47.. 82	27982.09	91861.10
13.. 48	1756127.3	18036086.3	48.. 83	22352.99	69508.11
14.. 49	1625171.7	16410914.6	49.. 84	17656.43	51851.68
15 . 50	1503847.3	14907067.3	50.. 85	13820.32	38031.36
16.. 51	1391022.5	13516044.8	51.. 86	10608.43	27422.93
17.. 52	1284852.4	12231192.4	52.. 87	7956.43	19466.50
18.. 53	1185445.8	11045746.6	53.. 88	5793.72	13672.78
19.. 54	1092625.2	9953121.4	54.. 89	4195.39	9477.39
20.. 55	1006257.4	8946864.0	55.. 90	3052.63	6424.76
21.. 56	925702.6	8021161.4	56.. 91	2091.30	4333.455
22.. 57	850761.2	7170400.2	57.. 92	1382.453	2951.002
23.. 58	780336.5	6390063.7	58.. 93	919.403	2031.599
24.. 59	713287.3	5676776.4	59.. 94	626.938	1404.661
25.. 60	649248.2	5027528.2	60.. 95	431.046	973.615
26.. 61	587656.4	4439871.8	61.. 96	301.322	672.293
27.. 62	530615.1	3909256.7	62.. 97	214.507	457.786
28.. 63	478111.5	3431145.2	63.. 98	151.507	306.279
29.. 64	430022.6	3001122.6	64.. 99	108.007	198.2723
30.. 65	385719.1	2615403.5	65..100	80.0527	118.2196
31.. 66	345409.7	2269993.8	66..101	56.3252	61.6944
32.. 67	308824.5	1961169.3	67..102	36.3420	25.5524
33.. 68	275590.9	1685378.4	68..103	19.6578	5.8946
34.. 69	245423.1	1440165.3			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 36	6513853.	54007617.7	10 & 46	2061906.5	21842646.7
1.. 37	5144541.6	48863076.1	11.. 47	1907771.2	19934875.5
2.. 38	4413700.2	44449375.9	12.. 48	1764952.1	18169923.4
3.. 39	3850078.4	40599297.5	13.. 49	1633637.3	16536286.1
4.. 40	3452831.4	37146466.1	14.. 50	1512202.0	15024084.1
5.. 41	3122682.5	34023783.6	15.. 51	1399687.2	13624396.9
6.. 42	2853625.3	31170158.3	16.. 52	1293529.7	12330867.2
7.. 43	2620815.7	28549342.6	17.. 53	1193699.4	11137167.8
8.. 44	2414983.8	26134358.8	18.. 54	1100285.8	10036882.0
9.. 45	2229805.6	23904553.2	19.. 55	1013362.3	9023519.7

TABLE XXXII.   843

reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty-Six Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
20 & 56	932285.2	8091234.5	44 & 80	43219.88	156937.35
21.. 57	856711.5	7234523.0	45.. 81	35280.61	121656.74
22.. 58	785832.8	6448690.2	46.. 82	28402.92	93253.82
23.. 59	718346.9	5730343.3	47.. 83	22684.26	70569.56
24.. 60	653886.4	5076456.9	48.. 84	17905.95	52663.61
25.. 61	591986.3	4484470.6	49.. 85	14012.05	38651.56
26.. 62	534553.7	3949916.9	50.. 86	10752.72	27898.84
27.. 63	481854.5	3468062.4	51.. 87	8071.80	19827.04
28.. 64	433796.1	3034266.3	52.. 88	5883.14	13943.90
29.. 65	389547.6	2644718.7	53.. 89	4264.25	9679.65
30.. 66	348934.9	2295783.8	54.. 90	3105.10	6574.55
31.. 67	312008.8	1983775.0	55.. 91	2129.47	4445.077
32.. 68	278411.4	1705363.6	56.. 92	1409.229	3035.848
33.. 69	247914.9	1457448.7	57.. 93	939.026	2096.822
34.. 70	220161.0	1237287.7	58.. 94	642.489	1454.333
35.. 71	194972.3	1042315.4	59.. 95	443.588	1010.745
36.. 72	171336.2	870979.2	60.. 96	311.763	698.982
37.. 73	149036.2	721943.0	61.. 97	222.469	476.513
38.. 74	128209.9	593733.1	62.. 98	157.395	319.118
39.. 75	108817.8	484915.3	63.. 99	112.303	206.8146
40.. 76	91749.4	393165.9	64..100	83.3683	123.4463
41.. 77	76633.4	316532.5	65..101	58.7387	64.7076
42.. 78	63640.0	252892.5	66..102	37.9551	26.7525
43.. 79	52735.3	200157.23	67..103	20.5709	6.1816

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	6080300.	50024283.3	21 & 58	791329.0	6506011.4
1.. 38	4800657.8	45223625.5	22.. 59	723406.5	5782604.9
2.. 39	4117371.4	41106254.1	23.. 60	658524.7	5124080.2
3.. 40	3589010.6	37517243.5	24.. 61	596215.5	4527864.7
4.. 41	3215026.2	34302217.3	25.. 62	538492.3	3989372.4
5.. 42	2905346.1	31396871.2	26.. 63	485431.2	3503941.2
6.. 43	2653407.0	28743464.2	27.. 64	437192.2	3066749.0
7.. 44	2436414.1	26307050.1	28.. 65	392965.8	2673783.2
8.. 45	2244572.7	24062477.4	29.. 66	352398.2	2321385.0
9.. 46	2072439.4	21990038.0	30.. 67	315193.0	2006192.0
10.. 47	1916374.0	20073664.0	31.. 68	281282.0	1724910.0
11.. 48	1773501.1	18300162.9	32.. 69	250452.1	1474457.9
12.. 49	1641846.6	16658316.3	33.. 70	222396.3	1252061.6
13.. 50	1520079.3	15138237.0	34.. 71	196972.2	1055089.4
14.. 51	1407463.3	13730773.7	35.. 72	173111.8	881977.6
15.. 52	1301587.1	12429186.6	36.. 73	150625.6	731352.0
16.. 53	1201761.0	11227425.6	37.. 74	129616.9	601735.1
17.. 54	1107946.4	10119479.2	38.. 75	110046.6	491688.5
18.. 55	1020467.3	9099011.9	39.. 76	92652.1	398836.4
19.. 56	938867.9	8160144.0	40.. 77	77643.2	321193.2
20.. 57	862803.6	7297340.4	41.. 78	64528.9	256664.3

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty-Seven Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
42 & 79	53504.3	203159.95	55 & 92	1434.947	3114.311
43.. 80	43859.44	159300.51	56.. 93	957.213	2157.098
44.. 81	35810.51	123490.00	57.. 94	656.202	1500.896
45.. 82	28829.85	94660.15	58.. 95	454.592	1046.304
46.. 83	23025.41	71634.74	59.. 96	320.834	725.470
47.. 84	18171.32	53463.42	60.. 97	230.176	495.294
48.. 85	14210.06	39253.36	61.. 98	163.237	332.057
49.. 86	10901.89	28351.47	62.. 99	116.667	215.3897
50.. 87	8181.58	20169.89	63..100	86.6839	128.7058
51.. 88	5968.45	14201.44	64..101	61.1716	67.5342
52.. 89	4330.06	9871.38	65..102	39.5814	27.9528
53.. 90	3156.06	6715.32	66..103	21.4840	6.4688
54.. 91	2166.06	4549.258			

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 38	5673866.	46302992.6	33 & 71	198972.1	1067621.9
1.. 39	4478349.4	41824643.2	34.. 72	174887.5	892734.4
2.. 40	3838178.9	37986464.3	35.. 73	152186.6	740547.8
3.. 41	3341826.3	34644638.0	36.. 74	130999.3	609548.5
4.. 42	2991262.6	31653375.4	37.. 75	111254.4	498294.1
5.. 43	2701499.0	28951876.4	38.. 76	93900.7	404393.4
6.. 44	2466712.2	26485164.2	39.. 77	78576.4	325817.0
7.. 45	2264490.7	24220673.5	40.. 78	65379.1	260437.9
8.. 46	2086164.3	22134509.2	41.. 79	54251.8	206186.05
9.. 47	1926163.6	20208345.6	42.. 80	44499.01	161687.04
10.. 48	1781498.5	18426847.1	43.. 81	36340.44	125346.60
11.. 49	1649799.2	16777047.9	44.. 82	29262.84	96083.76
12.. 50	1527717.9	15249330.0	45.. 83	23371.51	72712.25
13.. 51	1414795.0	13834535.0	46.. 84	18444.59	54267.66
14.. 52	1308818.1	12525716.9	47.. 85	14420.66	39847.00
15.. 53	1209246.9	11316470.0	48.. 86	11055.96	28791.04
16.. 54	1115429.0	10201041.0	49.. 87	8295.09	20495.95
17.. 55	1027572.2	9173468.8	50.. 88	6049.62	14446.33
18.. 56	945450.5	8228018.3	51.. 89	4392.85	10053.48
19.. 57	868895.6	7359122.7	52.. 90	3204.77	6848.71
20.. 58	796956.2	6562166.5	53.. 91	2201.62	4647.089
21.. 59	728466.1	5833700.4	54.. 92	1459.609	3187.480
22.. 60	663163.0	5170537.4	55.. 93	974.682	2212.798
23.. 61	600444.7	4570092.7	56.. 94	668.912	1543.886
24.. 62	542339.4	4027753.3	57.. 95	464.293	1079.593
25.. 63	489007.9	3538745.4	58.. 96	328.792	750.801
26.. 64	440437.4	3098308.0	59.. 97	236.873	513.928
27.. 65	396042.3	2702265.7	60.. 98	168.893	345.035
28.. 66	355490.5	2346775.2	61.. 99	120.997	224.0382
29.. 67	318321.5	2028453.7	62..100	90.0526	133.9856
30.. 68	284152.8	1744300.9	63..101	63.6044	70.3812
31.. 69	253034.6	1491266.3	64..102	41.2207	29.1605
32.. 70	224672.3	1266594.0	65..103	22.4046	6.7559

TABLE XXXII. 845

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Thirty-Nine Years.

Ages	D.	N.	Ages	D.	N.
0 & 39	5292932.	42827158.4	33 & 72	176663.2	903285.5
1.. 40	4174679.4	38652479.0	34.. 73	153747.7	749537.8
2.. 41	3573833.8	35076645.2	35.. 74	132356.9	617180.9
3.. 42	3109237.6	31969407.6	36.. 75	112440.9	504740.0
4.. 43	2781387.3	29188020.3	37.. 76	94931.2	409808.8
5.. 44	2511420.5	26676599.8	38.. 77	79463.8	330345.0
6.. 45	2292651.0	24383948.8	39.. 78	66165.1	264179.9
7.. 46	2104676.7	22279272.1	40.. 79	54966.5	200213.44
8.. 47	1938919.8	20340352.3	41.. 80	45120.56	164092.88
9.. 48	1790599.0	18549753.3	42.. 81	36870.37	127222.51
10.. 49	1657238.9	16892514.4	43.. 82	29695.89	97526.62
11.. 50	1535117.8	15357396.6	44.. 83	23722.55	73804.07
12.. 51	1421904.4	13935492.2	45.. 84	18721.83	55082.24
13.. 52	1315536.0	12619856.2	46.. 85	14637.53	40444.71
14.. 53	1215964.9	11403891.3	47.. ■	11219.79	29224.92
15.. 54	1122377.0	10281514.3	48.. 87	8412.31	20812.61
16.. 55	1034511.9	9247002.4	49.. 88	6133.54	14679.07
17.. 56	952033.0	8294969.4	50.. 89	4452.58	10226.49
18.. 57	874987.6	7419981.8	51.. 90	3251.23	6975.26
19.. 58	802583.3	6617398.5	52.. 91	2235.59	4739.666
20.. ■	733646.2	5883752.3	53.. 92	1483.565	3256.101
21.. 60	667801.2	5215951.1	54.. 93	991.433	2264.668
22.. 61	604674.0	4611277.1	55.. 94	681.119	1583.549
23.. 62	546186.4	4065090.7	56.. 95	473.286	1110.263
24.. 63	492501.5	3572589.2	57.. 96	335.809	774.454
25.. 64	443682.4	3128906.8	58.. 97	242.749	531.705
26.. 65	398982.1	2729924.7	59.. 98	173.807	357.698
27.. 66	358273.6	2371651.1	60.. 99	125.189	232.7088
28.. 67	321114.8	2050536.3	61..100	93.3947	139.3141
29.. 68	286973.2	1763563.1	62..101	66.0761	73.2380
30.. 69	255617.0	1507946.1	63..102	42.8601	30.3779
31.. 70	226989.0	1280957.1	64..103	23.3326	7.0453
32.. 71	201008.4	1079948.7			

Difference of Age Forty Years.

Ages	D.	N.	Ages	D.	N.
0 & 40	■■■■■■■.	39582879.5	12 & 52	1322247.2	12711430.0
1.. 41	3867158.7	35695720.8	13.. 53	1222299.0	11489131.0
2.. 42	3325097.5	32370623.3	14.. 54	1128612.5	10360518.5
3.. 43	■■■■■■■	29479538.5	15.. 55	1040955.9	9319562.6
4.. 44	2585687.9	26893850.6	16.. 56	958462.7	8361099.9
5.. 45	2334204.3	24559646.3	17.. 57	881079.7	■■■■■■■
6.. 46	2130849.6	22428796.7	18.. 58	808210.4	6671809.8
7.. 47	1956125.5	20472671.2	19.. 59	738826.3	5932983.5
8.. 48	1802457.3	18670213.9	20.. 60	672550.0	5260433.5
9.. 49	1665704.6	17004509.3	21.. 61	608903.1	4651530.4
10.. 50	■■■■■■■	15462469.0	22.. 62	550033.5	4101496.9
11.. 51	1428791.8	14033677.2	23.. 63	■■■■■■■	3605502.0

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
24 & 64	446852.3	3158649.7	44 & 84	19003.03	55908.55
25.. 65	401921.7	2756728.0	45.. 85	14857.54	41051.01
26.. 66	360933.0	2395795.0	46.. 86	11388.54	29662.47
27.. 67	323628.8	2072166.2	47.. 87	8536.99	21125.48
28.. 68	289491.4	1782674.8	48.. 88	6220.24	14905.24
29.. 69	258154.1	1524520.7	49.. 89	4514.37	10390.87
30.. 70	229305.7	1295215.0	50.. 90	3295.45	7095.42
31.. 71	203081.0	1092134.0	51.. 91	2268.02	4827.399
32.. 72	178471.1	913662.9	52.. 92	1506.465	3320.934
33.. 73	155308.7	758354.2	53.. 93	1007.706	2313.228
34.. 74	133714.5	624639.7	54.. 94	692.826	1620.402
35.. 75	113606.2	511033.5	55.. 95	481.923	1138.479
36.. 76	95943.6	415089.9	56.. 96	342.314	796.165
37.. 77	80335.9	334754.0	57.. 97	247.931	548.234
38.. 78	66912.2	267841.8	58.. 98	178.119	370.115
39.. 79	55627.2	212214.55	59.. 99	128.832	241.2828
40.. 80	45715.09	166499.46	60..100	96.6308	144.6520
41.. 81	37385.36	129114.10	61..101	68.5285	76.1235
42.. 82	30128.93	98985.17	62..102	44.5258	31.5977
43.. 83	24073.59	74911.58	63..103	24.2605	7.3373

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	4594207.	36558689.5	23 & 64	450021.9	3187562.2
1.. 42	3616615.1	32942074.4	24.. 65	404793.1	2782769.1
2.. 43	3091799.4	29850275.0	25.. 66	363592.4	2419176.7
3.. 44	2687667.0	27162608.0	26.. 67	326031.0	2093145.7
4.. 45	2403231.2	24759376.8	27.. 68	291757.8	1801387.9
5.. 46	2169470.4	22589906.4	28.. 69	260419.4	1540968.5
6.. 47	1980450.9	20609455.5	29.. 70	231581.6	1309386.9
7.. 48	1818452.2	18791003.3	30.. 71	205153.6	1104233.3
8.. 49	1676735.8	17114267.5	31.. 72	180311.3	923922.0
9.. 50	1549917.5	15564350.0	32.. 73	156898.0	767024.0
10.. 51	1435234.8	14129115.2	33.. 74	135072.2	631951.8
11.. 52	1328651.8	12800463.4	34.. 75	114771.5	517180.3
12.. 53	1228441.3	11572022.1	35.. 76	96937.9	420242.4
13.. 54	1134491.5	10437530.6	36.. 77	81192.5	339049.9
14.. 55	1046739.0	9390791.6	37.. 78	67646.5	271403.4
15.. 56	964433.0	8426358.6	38.. 79	56255.3	215148.11
16.. 57	887030.1	7539328.5	39.. 80	46264.56	168883.55
17.. 58	813837.3	6725491.2	40.. 81	37877.96	131005.59
18.. 59	744006.4	5981484.8	41.. 82	30549.76	100455.83
19.. 60	677298.7	5304186.1	42.. 83	24424.64	76031.19
20.. 61	613233.1	4690953.0	43.. 84	19284.24	56746.95
21.. 62	553580.4	4137072.6	44.. 85	15080.70	41666.25
22.. 63	499488.5	3637584.1	45.. 86	11559.72	30106.53

TABLE XXXII. 847

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-One Years—continued.

Ages.	D.	N.	Ages.	D.	N.
46 & 87	8665.37	21441.16	55 & 96	348.561	816.033
47.. 88	6312.41	15123.75	56.. 97	252.734	563.304
48.. 89	4578.16	10550.59	57.. 98	181.920	381.384
49.. 90	3341.17	7209.42	58.. 99	132.028	249.3559
50.. 91	2298.85	4910.571	59...100	99.4424	149.9135
51.. 92	1528.308	3382.263	60..101	70.9030	79.0105
52.. 93	1023.261	2339.002	61..102	46.1783	32.8322
53.. 94	704.197	1654.805	62..103	25.2033	7.6289
54.. 95	490.206	1164.599			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	4274454.	33742162.9	31 & 73	158515.9	775596.7
1.. 43	3362863.5	30379299.4	32.. 74	136454.4	639142.3
2.. 44	2874259.2	27505040.2	33.. 75	115936.8	523205.5
3.. 45	2496014.4	25007025.8	34.. 76	97932.3	425273.2
4.. 46	2233625.7	22773400.1	35.. 77	82034.0	343239.2
5.. 47	2016345.9	20757054.2	36.. 78	68368.0	274871.2
6.. 48	1841065.6	18915988.6	37.. 79	56872.7	217993.54
7.. 49	1691615.0	17224373.6	38.. 80	46787.01	171211.53
8.. 50	1560181.9	15664191.7	39.. 81	38333.24	132878.29
9.. 51	1442566.4	14221625.3	40.. 82	30952.29	101926.00
10.. 52	1334643.3	12886982.0	41.. 83	24765.80	77160.20
11.. 53	1234391.5	11652590.5	42.. 84	19565.44	57594.76
12.. 54	1140192.5	10512398.0	43.. 85	15303.89	42290.87
13.. 55	1052191.6	9460206.4	44.. 86	11733.34	30557.53
14.. 56	969790.9	8490415.5	45.. 87	8795.62	21761.91
15.. 57	892555.4	7597860.1	46.. 88	6407.34	15354.57
16.. 58	819333.8	6778526.3	47.. 89	4646.01	10708.56
17.. 59	749186.5	6029339.8	48.. 90	3388.40	7320.16
18.. 60	682047.4	5347292.4	49.. 91	2330.75	4989.414
19.. 61	617563.0	4729729.4	50.. 92	1549.094	3440.320
20.. 62	557819.1	4171910.3	51.. 93	1038.097	2402.223
21.. 63	502981.9	3668928.4	52.. 94	715.066	1687.157
22.. 64	453191.6	3215736.8	53.. 95	498.251	1188.906
23.. 65	407664.4	2808072.4	54.. 96	354.552	834.354
24.. 66	366189.9	2441882.5	55.. 97	257.346	577.008
25.. 67	328433.1	2113449.4	56.. 98	185.444	391.564
26.. 68	293923.4	1819526.0	57.. 99	134.846	256.7177
27.. 69	262458.2	1557067.8	58..100	101.9092	154.8085
28.. 70	233613.7	1323454.1	59..101	72.9660	81.8425
29.. 71	207189.9	1116264.2	60..102	47.7783	34.0642
30.. 72	182151.6	934112.6	61..103	26.1387	7.9255

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 43	3974546.	31120891.4	31 & 74	137861.4	646252.1
1.. 44	3126251.1	27994640.3	32.. 75	117123.1	529129.0
2.. 45	2671439.9	25323200.4	33.. 76	98926.6	430202.4
3.. ■	2321719.5	23001480.9	34.. 77	82675.4	347327.8
4.. 47	2075973.0	20925507.9	35.. 78	69076.5	278250.5
5.. 48	1874434.2	19051073.7	36.. 79	57479.2	220771.25
6.. 49	1712651.2	17338422.5	37.. 80	47300.49	173470.76
7.. 50	1574026.8	15764395.7	38.. 81	38766.12	134704.64
8.. 51	1452119.9	14312275.8	39.. 82	31324.34	103380.30
9.. 52	1341461.1	12970814.7	40.. 83	25092.11	78288.19
10.. 53	1239957.9	11730856.8	41.. 84	19838.73	58449.46
11.. 54	1145715.4	10585141.4	42.. ■	15527.04	42922.42
12.. 55	1057479.0	9527662.4	43.. 86	11906.97	31015.45
13.. 56	974842.7	8552819.7	44.. 87	8927.72	22087.73
14.. 57	897514.1	7655305.6	45.. 88	6503.66	15584.07
15.. 58	824437.4	6830868.2	46.. 89	4715.87	10868.20
16.. ■	754246.2	6076622.0	47.. 90	3438.61	7419.59
17.. 60	686796.1	5389825.9	48.. 91	2363.69	5065.898
18.. 61	621892.9	4767933.0	49.. 92	1570.585	3495.313
19.. 62	561757.8	4206175.2	50.. 93	1052.216	2443.097
20.. 63	506558.6	3699616.6	51.. 94	725.435	1717.662
21.. 64	456361.3	3243255.3	52.. 95	505.942	1211.730
22.. 65	410535.8	2832719.5	53.. 96	360.372	851.348
23.. 66	368787.4	2463932.1	54.. 97	261.768	589.580
24.. 67	330779.6	2133152.5	55.. 98	188.828	400.752
25.. 68	296088.9	1837063.6	56.. 99	137.459	263.2928
26.. 69	264406.4	1572657.2	57..100	104.0843	159.2085
27.. 70	235442.6	1337214.6	58..101	74.7760	84.4325
28.. 71	209008.0	1128206.6	59..102	49.1685	35.2640
29.. 72	183959.4	944247.2	60..103	27.0444	8.3196
30.. 73	160133.7	784113.5			

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	3594896.	26661871.2	14 & 58	829017.6	6882234.4
1.. 45	2905650.1	25776221.1	15.. 59	758944.4	6123290.0
2.. 46	2482905.7	23293315.4	16.. 60	691434.3	5431655.7
3.. 47	2157849.1	21135466.3	17.. 61	626222.7	4805633.0
4.. 48	1929864.7	19205601.6	18.. 62	565696.4	4239936.6
5.. 49	1743692.4	17461909.2	19.. 63	510135.3	3729801.3
6.. 50	1593600.7	15868308.5	20.. 64	466400.6	3270194.8
7.. 51	1465005.9	14403302.6	21.. 65	413407.1	2856767.7
8.. 52	1350345.0	13052957.6	22.. 66	371385.0	2485402.7
9.. 53	1246292.0	11806665.6	23.. 67	333125.9	2152276.6
10.. 54	1150881.8	10655783.8	24.. 68	298204.4	1854072.4
11.. 55	1062601.1	9593162.7	25.. 69	266354.3	1587717.9
12.. 56	979741.4	8613441.3	26.. 70	237190.3	1350527.6
13.. 57	902189.3	7711252.0	27.. 71	210644.3	1139883.3

TABLE XXXII. 849

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-Four Years—continued.

Ages.	D.	N.	Ages.	D.	N.
28 & 72	185573.7	954309.6	44 & 88	6601.33	15817.21
29.. 73	161723.0	792586.6	45.. 89	4786.77	11030.44
30.. 74	139268.5	653318.1	46.. 90	3490.32	7540.12
31.. 75	118330.9	534987.2	47.. 91	2398.71	5141.407
32.. 76	99939.1	435048.1	48.. 92	1592.781	3548.626
33.. 77	83716.9	351331.2	49.. 93	1066.813	2481.813
34.. 78	69785.0	281546.2	50.. 94	735.300	1746.513
35.. 79	58074.9	223471.29	51.. 95	513.278	1233.235
36.. 80	47804.92	175666.37	52.. 96	365.933	867.302
37.. 81	39191.56	136474.81	53.. 97	266.066	601.236
38.. 82	31678.07	104796.74	54.. 98	192.073	409.163
39.. 83	25393.72	79403.02	55.. 99	139.967	269.1960
40.. 84	20100.13	59302.89	56..100	106.1003	163.0957
41.. 85	15743.91	43558.98	57..101	76.3719	86.7238
42.. 86	12080.60	31478.38	58..102	50.3882	36.3356
43.. 87	9059.84	22418.54	59..103	27.8312	8.5044

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 45	3434169.	26413007.5	30 & 75	119538.6	540810.7
1.. 46	2700586.8	23712420.7	31.. 76	100969.5	439841.2
2.. 47	2307658.5	21404762.2	32.. 77	84573.7	355267.5
3.. 48	2005978.4	19398783.8	33.. 78	70493.5	284774.0
4.. 49	1795256.6	17603527.2	34.. 79	58670.6	226103.41
5.. 50	1622484.0	15981043.2	35.. 80	48300.35	177803.06
6.. 51	1483223.9	14497819.3	36.. 81	39609.52	138193.54
7.. 52	1362327.9	13135491.4	37.. 82	32025.72	106167.82
8.. 53	1254545.7	11880945.7	38.. 83	25680.49	80487.33
9.. 54	1156761.0	10724184.7	39.. 84	20341.73	60145.60
10.. 55	1067392.9	9656791.8	40.. 85	15951.36	44194.24
11.. 56	984487.0	8672304.8	41.. 86	12249.35	31944.89
12.. 57	906723.0	7765581.8	42.. 87	9191.96	22752.93
13.. 58	833336.1	6932245.7	43.. 88	6699.02	16053.91
14.. 59	763160.7	6169085.0	44.. 89	4858.66	11195.25
15.. 60	695741.3	5473343.7	45.. 90	3542.80	7652.45
16.. 61	630451.9	4842691.8	46.. 91	2434.78	5217.671
17.. 62	569635.0	4273256.8	47.. 92	1616.385	3601.286
18.. 63	513712.1	3759544.7	48.. 93	1081.890	2519.396
19.. 64	462851.7	3296693.0	49.. 94	745.502	1773.894
20.. 65	416346.9	2880346.1	50.. 95	520.259	1253.635
21.. 66	373982.5	2506363.6	51.. 96	371.238	882.397
22.. 67	335472.2	2170891.4	52.. 97	270.173	612.224
23.. 68	300319.6	1870571.8	53.. 98	195.226	416.998
24.. 69	268257.4	1602314.4	54.. 99	142.373	274.6251
25.. 70	238937.9	1363376.5	55..100	108.0367	166.5884
26.. 71	212207.8	1151168.7	56..101	77.8512	88.7372
27.. 72	187026.5	964142.2	57..102	51.4637	37.2735
28.. 73	163142.2	801000.0	58..103	28.5216	8.7519
29.. 74	140650.7	660349.3			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	3191806.	24302430.8	29 & 75	120724.9	546607.7
1.. 47	2509975.3	21792455.5	30.. 76	101999.9	444607.8
2.. 48	2145244.1	19647211.4	31.. 77	85445.8	359162.0
3.. 49	1866061.3	17781160.1	32.. 78	71214.9	287947.1
4.. 50	1670463.9	16110686.2	33.. 79	59266.3	228680.83
5.. 51	1510106.9	14600579.3	34.. 80	48795.79	179885.04
6.. 52	1379269.2	13221310.1	35.. 81	40020.03	139865.01
7.. 53	1265678.4	11955631.7	36.. 82	32367.26	107497.75
8.. 54	1164421.6	10791210.1	37.. 83	25962.30	81535.45
9.. 55	1072845.5	9718364.6	38.. 84	20571.44	60964.01
10.. 56	988926.5	8729438.1	39.. 85	16143.08	44820.93
11.. 57	911115.0	7818323.1	40.. 86	12410.75	32410.18
12.. 58	837523.7	6980799.4	41.. 87	9320.35	23089.83
13.. 59	767136.1	6213663.3	42.. 88	6796.71	16293.12
14.. 60	699606.6	5514056.7	43.. 89	4930.56	11362.56
15.. 61	634379.0	4879677.7	44.. 90	3596.00	7766.56
16.. 62	573482.1	4306195.6	45.. 91	2471.38	5295.183
17.. 63	517288.6	3788907.0	46.. 92	1640.694	3654.489
18.. 64	466096.8	3322810.2	47.. 93	1097.924	2556.565
19.. 65	419286.7	2903523.5	48.. 94	756.037	1800.528
20.. 66	376641.9	2526881.6	49.. 95	527.477	1273.051
21.. 67	337818.5	2189063.1	50.. 96	376.287	896.764
22.. 68	302435.0	1886628.1	51.. 97	274.090	622.674
23.. 69	270160.3	1616467.8	52.. 98	198.239	424.435
24.. 70	240644.8	1375823.0	53.. 99	144.710	279.7251
25.. 71	213771.3	1162051.7	54..100	109.8934	169.8317
26.. 72	188414.8	973636.9	55..101	79.2719	90.5598
27.. 73	164419.4	809217.5	56..102	52.4604	38.0994
28.. 74	141884.9	667332.6	57..103	29.1304	8.9690

Difference of Age Forty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 47	2966523.	22339144.8	16 & 63	520782.2	3817944.4
1.. 48	2333321.9	20005822.9	17.. 64	469341.9	3348602.5
2.. 49	1995613.3	18010209.6	18.. 65	422226.4	2926376.1
3.. 50	1736346.8	16273862.8	19.. 66	379301.3	2547074.8
4.. 51	1554763.6	14719099.2	20.. 67	340220.8	2206854.0
5.. 52	1404267.9	13314831.3	21.. 68	304550.2	1902303.8
6.. 53	1281417.8	12033413.5	22.. 69	272063.1	1630240.7
7.. 54	1174754.6	10858658.9	23.. 70	242351.8	1387888.9
8.. 55	1079950.5	9778708.4	24.. 71	215298.6	1172590.3
9.. 56	993978.2	8784730.2	25.. 72	189803.0	982787.3
10.. 57	915223.5	7869506.7	26.. 73	165639.9	817147.4
11.. 58	841580.5	7027926.2	27.. 74	142995.7	674151.7
12.. 59	770991.1	6256935.1	28.. 75	121784.3	552367.4
13.. 60	703250.8	5553684.3	29.. 76	103012.3	449355.1
14.. 61	637903.4	4915780.9	30.. 77	86317.9	363037.2
15.. 62	577054.3	4338726.6	31.. 78	71949.3	291087.9

TABLE XXXII. 851

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-Seven Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
32 & 79	59872.8	231215.05	45 & 92	1665.356	3708.593
33.. 80	49291.22	181923.83	46.. 93	1114.435	2594.158
34.. 81	40430.52	141493.31	47.. 94	767.242	1826.916
35.. 82	32702.70	108790.61	48.. 95	534.931	1291.985
36.. 83	26239.19	82551.42	49.. 96	381.508	910.477
37.. 84	20797.20	61754.22	50.. 97	277.817	632.660
38.. 85	16325.38	45428.84	51.. 98	201.113	431.547
39.. 86	12559.92	32868.92	52.. 99	146.943	284.6043
40.. 87	9443.16	23425.76	53..100	111.6971	172.9072
41.. 88	6891.65	16534.11	54..101	80.6344	92.2728
42.. 89	5002.47	11531.64	55..102	53.4178	38.8550
43.. 90	3649.20	7882.44	56..103	29.6946	9.1604
44.. 91	2508.49	5373.949			

Difference of Age Forty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 48	2757738.	20512373.6	28 & 76	103916.3	454073.1
1.. 49	2170572.5	18341801.1	29.. 77	87174.5	366898.6
2.. 50	1856893.2	16484907.9	30.. 78	72683.6	294215.0
3.. 51	1616083.8	14868824.6	31.. 79	60490.2	233724.75
4.. 52	1445794.7	13423029.9	32.. 80	49795.67	183929.08
5.. 53	1304642.9	12118387.0	33.. 81	40841.02	143088.06
6.. 54	1189363.4	10929023.6	34.. 82	33038.15	110049.91
7.. 55	1089533.9	9839489.7	35.. 83	26511.12	83538.79
8.. 56	1000560.9	8838928.8	36.. 84	21018.99	62519.80
9.. 57	919898.8	7919030.0	37.. 85	16504.54	46015.26
10.. 58	845375.5	7073654.5	38.. 86	12701.76	33313.50
11.. 59	774725.6	6298928.9	39.. 87	9556.66	23756.84
12.. 60	706784.8	5592144.1	40.. 88	6982.46	16774.38
13.. 61	641226.2	4950917.9	41.. 89	5072.34	11702.04
14.. 62	580260.2	4370657.7	42.. 90	3702.43	7999.61
15.. 63	524026.2	3846631.5	43.. 91	2545.63	5453.976
16.. 64	472511.7	3374119.8	44.. 92	1690.369	3763.607
17.. 65	425166.0	2948953.8	45.. 93	1131.186	2632.421
18.. 66	381960.7	2566993.1	46.. 94	778.780	1853.641
19.. 67	342623.0	2224370.1	47.. 95	542.860	1310.781
20.. 68	306715.9	1917654.2	48.. 96	386.900	923.881
21.. 69	273965.9	1643688.3	49.. 97	281.671	642.270
22.. 70	244058.9	1399629.4	50.. 98	203.848	438.362
23.. 71	216825.8	1182803.6	51.. 99	149.073	289.2893
24.. 72	191159.1	991644.5	52..100	113.4212	175.8681
25.. 73	166860.2	824784.3	53..101	81.9579	93.9102
26.. 74	144057.2	680727.1	54..102	54.3358	39.5744
27.. 75	122737.7	557989.4	55..103	30.2305	9.3379

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Forty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 49	2565385.	18811029.7	28 & 77	87939.5	370737.7
1.. 50	2019690.8	16791338.9	29.. 78	73404.9	297332.8
2.. 51	1728280.4	15063058.5	30.. 79	61107.6	236225.20
3.. 52	1502816.7	13560241.8	31.. 80	50309.11	185916.09
4.. 53	1343223.7	12217018.1	32.. 81	41258.98	144657.11
5.. 54	1210920.1	11006098.0	33.. 82	33373.59	111283.52
6.. 55	1103082.9	9903015.1	34.. 83	26783.05	84500.47
7.. 56	1009439.8	8893575.3	35.. 84	21236.83	63263.64
8.. 57	925990.9	7967584.4	36.. 85	16680.56	46583.08
9.. 58	849694.0	7117890.4	37.. 86	12841.15	33741.93
10.. 59	778219.1	6339671.3	38.. 87	9664.58	24077.35
11.. 60	710208.3	5629463.0	39.. 88	7066.38	17010.97
12.. 61	644448.5	4985014.5	40.. 89	5139.17	11871.80
13.. 62	583282.8	4401731.7	41.. 90	3754.14	8117.66
14.. 63	526937.5	3874794.2	42.. 91	2582.75	5534.914
15.. 64	475455.0	3399339.2	43.. 92	1715.384	3819.530
16.. 65	428037.4	2971301.8	44.. 93	1148.176	2671.354
17.. 66	384620.1	2586681.7	45.. 94	790.487	1880.867
18.. 67	345005.2	2241656.5	46.. 95	551.023	1329.844
19.. 68	308881.6	1932774.9	47.. 96	392.634	937.210
20.. 69	275914.1	1656860.8	48.. 97	285.653	651.557
21.. 70	243765.9	1411094.9	49.. 98	206.676	444.881
22.. 71	218353.1	1192741.8	50.. 99	151.100	293.7809
23.. 72	192514.9	1000226.9	51..100	115.0658	178.7151
24.. 73	168052.4	832174.5	52..101	83.2229	95.4922
25.. 74	145118.6	687055.9	53..102	55.2277	40.2615
26.. 75	123648.9	563407.0	54..103	30.7562	9.5083
27.. 76	104729.8	458677.2			

Difference of Age Fifty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 50	2387059.	17225748.7	17 & 67	347427.4	2258752.2
1.. 51	1879802.1	15345946.6	18.. 68	311047.2	1947705.0
2.. 52	1607150.3	13738796.3	19.. 69	277862.3	1669842.7
3.. 53	1396200.4	12342595.9	20.. 70	247513.5	1422329.2
4.. 54	1246729.2	11095866.7	21.. 71	219880.2	1202449.0
5.. 55	1123075.8	9972790.9	22.. 72	193871.0	1008578.0
6.. 56	1021992.8	8950798.1	23.. 73	169244.4	839333.6
7.. 57	934208.0	8016590.1	24.. 74	146155.4	693178.2
8.. 58	855321.1	7161269.0	25.. 75	124559.9	568618.3
9.. 59	782194.5	6379074.5	26.. 76	105507.2	463111.1
10.. 60	713410.9	5665663.6	27.. 77	88628.0	374483.1
11.. 61	647570.1	5018093.5	28.. 78	74049.1	300434.0
12.. 62	586213.9	4431879.6	29.. 79	61714.0	238720.01
13.. 63	529682.3	3902197.3	30.. 80	50822.55	187897.46
14.. 64	478096.4	3424100.9	31.. 81	41684.42	146213.04
15.. 65	430703.7	2993397.2	32.. 82	33715.13	112497.91
16.. 66	387217.6	2606179.6	33.. 83	27054.98	85442.93

TABLE XXXII. 853

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifty Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
34 & 84	21454.66	63988.27	44 & 94	802.360	1908.598
35.. 85	16853.44	47134.83	45.. 95	559.305	1349.293
36.. 86	12978.10	34156.73	46.. 96	398.540	950.753
37.. 87	9770.66	24386.07	47.. 97	289.885	660.868
38.. 88	7146.18	17239.89	48.. 98	209.598	451.270
39.. 89	5200.94	12038.95	49.. 99	153.197	298.0731
40.. 90	3803.61	8235.34	50..100	116.6307	181.4424
41.. 91	2618.82	5616.522	51..101	84.4296	97.0128
42.. 92	1740.397	3876.125	52..102	56.0802	40.9326
43.. 93	1165.167	2710.958	53..103	31.2609	9.6717

Difference of Age Fifty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 51	2221726.	15747719.5	27 & 78	74628.8	303458.2
1.. 52	1748032.2	13999667.3	28.. 79	62255.6	241202.56
2.. 53	1493132.1	12506535.2	29.. 80	51326.99	189875.57
3.. 54	1295900.1	11210635.1	30.. 81	42109.84	147765.73
4.. 55	1156287.2	10054347.9	31.. 82	34062.77	113702.96
5.. 56	1040516.0	9013831.9	32.. 83	27331.86	86371.10
6.. 57	945825.5	8068006.4	33.. 84	21672.49	64698.61
7.. 58	862911.1	7205095.3	34.. 85	17026.30	47672.31
8.. 59	787374.7	6417720.6	35.. 86	13112.59	34559.72
9.. 60	717055.3	5700665.3	36.. 87	9874.85	24684.87
10.. 61	650490.2	5050175.1	37.. 88	7224.61	17460.26
11.. 62	589053.4	4461121.7	38.. 89	5259.67	12200.59
12.. 63	532344.1	3928777.6	39.. 90	3849.32	8351.27
13.. 64	480586.8	3448190.8	40.. 91	2653.33	5697.939
14.. 65	433096.5	3015094.3	41.. 92	1764.708	3933.231
15.. 66	389629.6	2625464.7	42.. 93	1182.158	2751.073
16.. 67	349773.8	2275690.9	43.. 94	814.232	1936.841
17.. 68	313212.8	1962478.1	44.. 95	567.706	1369.135
18.. 69	279810.4	1682667.7	45.. 96	404.529	964.606
19.. 70	249261.2	1433406.5	46.. 97	294.245	670.361
20.. 71	221443.8	1211962.7	47.. 98	212.705	457.656
21.. 72	195227.0	1016735.7	48.. 99	155.362	302.2937
22.. 73	170436.5	846299.2	49..100	118.2488	184.0449
23.. 74	147192.0	699107.2	50..101	85.5778	98.4671
24.. 75	125149.8	573657.4	51..102	56.8933	41.5738
25.. 76	106284.6	467372.8	52..103	31.7434	9.8304
26.. 77	89285.8	378087.0			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 52	2066011.	14370856.5	26 & 78	75182.8	306365.3
1.. 53	1624037.7	12746818.8	27.. 79	62743.0	243622.33
2.. 54	1385868.5	11360950.3	28.. 80	51777.39	191844.94
3.. 55	1201891.0	10159059.3	29.. 81	42527.79	149317.15
4.. 56	1071285.9	9057773.4	30.. 82	34410.42	114906.73
5.. 57	962968.1	8124805.3	31.. 83	27613.69	87293.04
6.. 58	873642.0	7251163.3	32.. 84	21894.29	65393.75
7.. 59	794361.7	6456801.6	33.. 85	17199.18	48199.57
8.. 60	721804.1	5734997.5	34.. 86	13247.09	34952.48
9.. 61	653813.2	5081184.3	35.. 87	9977.19	24975.29
10.. 62	591709.7	4489474.6	36.. 88	7301.66	17673.63
11.. 63	534922.6	3954552.0	37.. 89	5317.40	12356.23
12.. 64	483001 9	3471550.1	38.. 90	3892.80	8463.43
13.. 65	435352.5	3035197 6	39.. 91	2685.21	5778.221
14.. 66	394794.2	2644403.4	40.. 92	1787.960	3990.261
15.. 67	351952.5	2292450.9	41.. 93	1198.670	2791.591
16.. 68	315328.2	19.7122.7	42.. 94	826.106	1965.485
17.. 69	281758.6	1695364.1	43.. 95	576.107	1389.378
18.. 70	251008.8	1444355.3	44.. 96	410.604	978.774
19.. 71	223007.4	1221347.9	45.. 97	298.668	680.106
20.. 72	196615.2	1024732.7	46.. 98	215.903	464.203
21.. 73	171648.6	853104.1	47.. 99	157.665	306.5380
22.. 74	148228.8	704875.3	48..100	119.9198	186.6182
23.. 75	126339.6	578535.7	49..101	86.7651	99.8531
24.. 76	107044.0	471491.7	50..102	57.6671	42.1860
25.. 77	89943.6	381548.1	51..103	32.2038	9.9832

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 53	1919440.	13089355.3	19 & 72	198003.5	1032624.9
1.. 54	1507370.2	11581985.1	20.. 73	172849.0	859775.9
2.. 55	1285332.8	10296652.3	21.. 74	149265.6	710510.3
3.. 56	1113537.3	9183115.0	22.. 75	127229.5	583280·8
4.. 57	991444.9	8191670.1	23.. 76	107803.2	475477.6
5.. 58	889476.3	7302193.8	24.. 77	90586.3	384891.3
6.. 59	804240.1	6497953.7	25.. 78	75736.6	309154.7
7.. 60	728209.3	5769744.4	26.. 79	63208.7	245946.01
8.. 61	658143.1	5111601.3	27.. 80	52182.74	193763.27
9.. 62	594732.3	4516869.0	28.. 81	42900.97	150862.30
10.. 63	537334.8	3979534.2	29.. 82	34751.94	116110.36
11.. 64	485341.5	3494192.7	30.. 83	27895.51	88214.85
12.. 65	437540.2	3056652.5	31.. 84	22120.05	66094.80
13.. 66	393835.1	2662817.4	32.. 85	17375.18	48719.62
14.. 67	353907.8	2308909.6	33.. 86	13381.59	35338.03
15.. 68	317292.3	1991617.3	34.. 87	10079.53	25258.50
16.. 69	283661.5	1707955.8	35.. 88	7377.33	17881.17
17.. 70	252756.4	1455199.4	36.. 89	5374.10	12507.07
18.. 71	224571.0	1230628.4	37.. 90	3935.52	8571.55

TABLE XXXII.   354

atory Table for finding the Values of Annuities, &c. on Two Joint Lines.
(Carlisle 6 per Cent.)

Difference of Age Fifty-Three Years—continued.

D.	N.	Ages.	D.	N.
2715.54	5856.008	45 & 98	219.148	470.959
1809.451	4046.557	46.. 99	160.035	310.9239
1214.464	2832.093	47..100	121.6970	189.2269
837.645	1994.448	48..101	87.9913	101,2356
684.508	1409.940	49..102	58.4671	42.7685
416.680	993,260	50..103	32.6417	10.1268
303.153	690,107			

Difference of Age Fifty-Four Years.

D.	N.	Ages.	D.	N.
1781551.	11897669.1	25 & 79	63674.4	248173.43
1398020.3	10499648.8	26.. 80	52570.08	195603.35
1190845.0	9308803.8	27.. 81	43236.84	152366.51
1030547.4	8278256.4	28.. 82	35056.90	117309.61
915779.8	7362476.6	29.. 83	28172.38	89137.23
818816.6	6543660,0	30.. 84	22345.80	66791,43
737265.0	5806395.0	31.. 85	17554.35	49237.08
663983.4	5142411.6	32.. 86	13518.54	35718.54
598671.0	4543740.6	33.. 87	10181.87	25536.67
540079.6	4003661.0	34.. 88	7453.00	18083.67
487530.0	3516131.0	35.. 89	5430.80	12653.87
439659.6	3076471.4	36.. 90	3977.48	8676.39
395814.2	2680657.2	37.. 91	2745.34	5931.051
355751.3	2324905.9	38.. 92	1829.884	4101.167
319055.0	2005850.9	39.. 93	1229.061	2872.106
285428.4	1720422.5	40.. 94	848.681	2023.425
254463.4	1465959.1	41.. 95	592.673	1430.752
226134.5	1239824.6	42.. 96	422.757	1007,995
199391.7	1040432.9	43.. 97	307.639	700.356
174069.5	866363.4	44.. 98	222.439	477.917
150327.0	716036.4	45.. 99	162.442	315.4751
128119.4	587917.0	46..100	123.5272	191.9479
108362.6	479354.4	47..101	89.2953	102.6526
91228.8	388125.6	48..102	59.2934	43.3592
76277.8	311847.8	49..103	33.0946	10.2646

Difference of Age Fifty-Five Years.

D.	N.	Ages.	D.	N.
1652311.	10790105.7	8 & 63	543656.4	4027327.0
1295248.7	9494857.0	9.. 64	490020.5	3537306.5
1102093.4	8392763.6	10.. 65	441642.1	3095664.4
951898.0	7440865.6	11.. 66	397731.4	2697933.0
843030.6	6597835.0	12.. 67	357539.1	2340393.9
750627.6	5847207,4	13.. 68	320717.0	2019676.9
672240.5	5174966.9	14.. 69	287014.1	1732662.8
603953.5	4570983.4	15.. 70	256048.5	1476614.3

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifty-Five Years—continued.

Ages.	D.	N.	Ages.	D.	N.
16 & 71	227661.8	1248952.5	33 & 68	7528.67	18252.55
17.. 72	200779.9	1048172.6	34.. 89	5485.50	12797.16
18.. 73	175259.8	872882.8	35.. 90	4018.70	8778.46
19.. 74	151388.4	721494.4	36.. 91	2774.62	6003.835
20.. 75	129030.4	592464.0	37.. 92	1849.965	4153.870
21.. 76	109321.8	483142.2	38.. 93	1242.940	2910.938
22.. 77	91871.5	391270.7	39.. 94	858.883	2052.047
23.. 78	76818.8	314451.9	40.. 95	600.482	1451.565
24.. 79	64129.3	250322.56	41.. 96	428.663	1022.902
25.. 80	52957.42	197365.14	42.. 97	312.126	710.776
26.. 81	43557.78	153807.36	43.. 98	225.732	485.044
27.. 82	35331.35	118476.01	44.. 99	164.880	320.1637
28.. 83	28419.60	90056.41	45..100	125.3840	194.7797
29.. 84	22567.59	67488.82	46..101	90.6382	104.1415
30.. 85	17733.50	49755.32	47..102	60.1721	43.9694
31.. 86	13657.93	36097.39	48..103	33.5624	10.4070
32.. 87	10286.06	25811.33			

Difference of Age Fifty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 56	1530846.	9761547.5	24 & 80	53335.77	199063.68
1.. 57	1198716.2	6562831.3	25.. 81	43878.71	155185.17
2.. 58	1017983.9	7544847.4	26.. 82	35593.62	119591.55
3.. 59	876279.6	6668567.8	27.. 83	29642.09	90949.44
4.. 60	772825.0	5895742.8	28.. 84	22765.62	68183.84
5.. 61	684424.5	5211318.3	29.. 85	17909.51	50274.33
6.. 62	611494.4	4599823.9	30.. 86	13797.33	36477.00
7.. 63	548480.7	4051343.2	31.. 87	10392.13	26084.87
8.. 64	493263.7	3558077.5	32.. 88	7605.73	18479.15
9.. 65	443898.2	3114179.3	33.. 89	5541.19	11937.96
10.. 66	399525.0	2714654.3	34.. 90	4059.92	6878.04
11.. 67	359271.0	2355383.3	35.. 91	2803.36	6074.657
12.. 68	322328.7	2033054.6	36.. 92	1869.695	4204.962
13.. 69	288509.2	1744545.4	37.. 93	1256.581	2948.281
14.. 70	257471.0	1487074.4	38.. 94	868.582	2079.709
15.. 71	229079.8	1257994.6	39.. 95	607.700	1472.099
16.. 72	202136.0	1055858.6	40.. 96	434.311	1037.788
17.. 73	176510.3	879348.3	41.. 97	316.485	721.303
18.. 74	152449.8	726898.5	42.. 98	229.023	492.280
19.. 75	129941.5	596957.0	43.. 99	167.341	324.9587
20.. 76	110099.2	486857.8	44..100	127.2673	197.6914
21.. 77	92514.0	394343.8	45..101	92.0006	105.6908
22.. 78	77359.9	316983.9	46..102	61.0771	44.6137
23.. 79	64954.3	252529.65	47..103	34.0600	10.5547

TABLE XXXII. 857

e for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifty-Seven Years.

	N.	Ages.	D.	N.
5.	8607016.1	24 & 81	44192.19	156512.55
2.5	7699783.6	25.. 82	35855.86	120656.69
5.6	6762668.0	26.. 83	28854.69	91802.00
5.1	5959362.9	27.. 84	22943.85	68858.15
4.1	5254698.8	28.. 85	18066.66	50791.49
7.4	4632121.4	29.. 86	13934.27	36857.22
1.5	4076819.9	30.. 87	10496.19	26359.03
2.8	3579177.1	31.. 88	7684.14	18674.89
8.0	3132339.1	32.. 89	5597.90	11070.79
5.8	2730773.3	33.. 90	4101.15	8975.84
1.0	2369882.3	34.. 91	2832.13	6143.712
0.0	2045992.3	35.. 92	1889.072	4104.640
9.0	1756033.3	36.. 93	1269.982	2984.658
2.2	1497221.1	37.. 94	878.114	2106.544
2.5	1266868.6	38.. 95	614.562	1491.982
5.1	1063473.5	39.. 96	439.531	1052.451
2.4	885771.1	40.. 97	320.656	731.795
1.1	732260.0	41.. 98	232.222	499.573
2.5	601407.5	42.. 99	169.762	329.8105
6.6	490530.9	43..100	129.1505	200.6600
1.9	397359.0	44..101	93.3825	107.2775
1.0	319458.0	45..102	61.9951	45.2824
9.2	254418.83	46..103	34.5719	10.7105
4.09	200704.74			

Difference of Age Fifty-Eight Years.

	N.	Ages.	D.	N.
1.	7922603.9	23 & 81	44505.67	157794.18
4.4	6903329.5	24.. 82	36112.03	121682.15
4.9	6044254.6	25.. 83	29067.29	92614.86
6.1	5311798.5	26.. 84	23114.16	69500.70
8.1	4670810.4	27.. 85	18208.11	51292.59
6.0	4105444.4	28.. 86	14056.54	37235.05
1.3	3601613.1	29.. 87	10602.38	26633.67
3.1	3150810.0	30.. 88	7762.56	18871.11
5.3	2746584.7	31.. 89	5655.62	13215.49
4.6	2383850.1	32.. 90	4143.12	9072.37
0.5	2058499.6	33.. 91	2860.89	6211.483
3.5	1767136.1	34.. 92	1908.449	4363.634
2.7	1507023.4	35.. 93	1283.144	3019.890
9.4	1275471.0	36.. 94	887.478	2132.412
5.1	1070945.9	37.. 95	621.306	1511.106
9.3	892136.6	38.. 96	444.494	1066.612
8.0	737588.6	39.. 97	310.509	747.103
3.5	605825.1	40.. 98	235.282	506.821
4.1	494171.0	41.. 99	172.134	334.6475
9.8	400341.2	42..100	131.0338	203.6535
4.9	321886.3	43..101	94.7642	108.8893
4.0	256392.28	44..102	62.9263	45.9630
9.43	202299.85	45..103	35.0915	10.8715

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Carlisle 6 per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 59	1204674.	7105926.7	23 & 82	36368.17	122671.95
1.. 60	934391.5	6171535.2	24.. 83	29274.95	93397.00
2.. 61	783307.0	5388228.2	25.. 84	23284.46	70112.54
3.. 62	666268.7	4721959.5	26.. 85	18343.27	51769.27
4.. 63	582084.9	4139874.6	27.. 86	14166.59	37602.68
5.. 64	512963.1	3626911.5	28.. 87	10695.42	26907.26
6.. 65	456409.2	3170502.3	29.. 88	7839.60	19067.66
7.. 66	407812.3	2762690.0	30.. 89	5713.33	13354.33
8.. 67	365136.8	2397553.2	31.. 90	4185.84	9163.49
9.. 68	327012.5	2070540.7	32.. 91	2890.17	6278.317
10.. 69	292677.4	1777863.8	33.. 92	1927.826	4350.491
11.. 70	261372.6	1516490.7	34.. 93	1296.305	3054.186
12.. 71	232716.0	1283774.7	35.. 94	896.675	2157.511
13.. 72	205590.4	1078184.8	36.. 95	627.932	1529.579
14.. 73	179802.7	898381.6	37.. 96	449.374	1080.205
15.. 74	155510.7	742870.9	38.. 97	328.173	752.032
16.. 75	132653.4	610217.5	39.. 98	238.110	513.922
17.. 76	112431.3	497786.2	40.. 99	174.401	339.5213
18.. 77	94487.5	403298.7	41..100	132.8641	206.6578
19.. 78	79009.0	324289.7	42..101	96.1462	110.5110
20.. 79	65959.7	258330.02	43..102	63.8574	46.6536
21., 80	54470.75	203859.27	44..103	35.6186	11.0350
22.. 81	44819.15	159040.12			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 60	1104351.	6355158.4	22 & 82	36624.35	123634.52
1.. 61	851981.0	5503177.4	23.. 83	29482.61	94151.91
2.. 62	712524.5	4790652.9	24.. 84	23450.81	70701.10
3.. 63	605042.3	4185610.6	25.. 85	18478.43	52222.67
4.. 64	528132.3	3657478.3	26.. 86	14271.74	37950.93
5.. 65	464681.4	3192796.9	27.. 87	10779.15	27171.78
6.. 66	412883.7	2779913.2	28.. 88	7908.40	19263.38
7.. 67	368376.9	2411536.3	29.. 89	5770.04	13493.34
8.. 68	329178.2	2082358.1	30.. 90	4228.57	9264.77
9.. 69	294172.4	1788185.7	31.. 91	2919.96	6344.810
10.. 70	262551.3	1525634.4	32.. 92	1947.555	4397.255
11.. 71	233843.2	1291791.2	33.. 93	1309.467	3087.788
12., 72	206623.6	1085167.6	34.. 94	905.873	2181.915
13.. 73	180739.2	904428.4	35.. 95	634.440	1547.475
14.. 74	156374.6	748053.8	36.. 96	454.165	1093.310
15.. 75	133479.8	614574.0	37.. 97	331.776	761.534
16.. 76	113190.7	501383.3	38.. 98	240.798	520.736
17., 77	95145.4	406237.9	39.. 99	176.497	344.2389
18,. 78	79562.8	326675.1	40..100	134.6148	209.6241
19., 79	66425.5	260249.57	41..101	97.4891	112.1350
20,. 80	54858.09	205391.48	42..102	64.7586	47.3464
21., 81	45132.61	160258.87	43..103	36.1457	11.2067

TABLE XXXIII. 350

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)
Difference 0.

Common Age.	D.	N.	Common Age.	D.	N.
0	35722500.0	762088419.27	48	2198364.52	20113003.40
1	72643204.12	689445215.15	49	2035294.05	18087709.35
2	49997256.13	639447959.02	50	1861912.39	16225796.96
3	42080008.07	597367950.95	51	1706634.24	14519162.72
4	36917450.75	560450500.20	52	1560484.63	12958678.09
5	33684873.68	526765626.52	53	1424208.02	11534470.07
6	30806209.41	495959417.11	54	1297271.62	10237198.45
7	28544085.66	467415331.45	55	1179167.40	9058031.05
8	26693261.31	440722070.14	56	1069411.63	7988619.42
9	25207618.66	415514451.48	57	967543.23	7021076.19
10	23964009.42	391550442.06	58	873123.37	6147952.82
11	22841608.55	368708833.51	59	785733.84	5362218.98
12	21783887.06	346925146.45	60	704976.87	4657242.11
13	20771418.94	326153727.51	61	630473.72	4026768.39
14	19802943.69	306350783.82	62	561864.06	3464904.33
15	18876472.49	287474311.33	63	499361.90	2965542.43
16	17990286.73	269484024.60	64	442602.93	2523539.50
17	17123417.61	252360606.99	65	389960.57	2133578.93
18	16264160.25	236096446.74	66	342394.38	1791184.55
19	15414603.79	220681842.95	67	299034.69	1492149.87
20	14582393.00	206099449.95	68	259625.40	1232524.47
21	13764196.71	192336253.24	69	223923.23	1008601.24
22	12969146.04	179367107.20	70	191697.16	816904.08
23	12215375.42	167151731.78	71	162727.90	654176.18
24	11500045.71	155651686.07	72	136807.32	517368.8624
25	10821395.70	144830290.37	73	113738.0973	403630.7651
26	10177739.96	134652550.41	74	93332.9637	310297.8014
27	9567462.94	125085087.47	75	75414.4884	234883.3130
28	6989018.78	116096068.69	76	59814.5177	175068.7953
29	8440928.02	107655140.67	77	46788.7287	128260.0666
30	7921774.10	99733366.57	78	36131.7878	92148.2768
31	7430201.10	92303165.47	79	27603.0771	64546.2017
32	6964912.05	85338253.42	80	20671.2969	43874.9048
33	6524665.47	78813587.95	81	15039.6199	28835.2849
34	6108273.58	72705314.37	82	10604.7339	18230.5510
35	5714600.59	66990713.78	83	7183.0031	11047.5479
36	5342559.77	61648154.01	84	4571.9854	6475.5625
37	4991111.78	56657042.23	85	2804.5409	3671.0216
38	4659263.00	51997779.23	86	1654.7589	2016.2627
39	4346063.51	47651715.72	87	941.4720	1074.790672
40	4050604.45	43601111.27	88	511.070043	563.720629
41	3769899.40	39831211.87	89	276.866481	286.854148
42	3503435.22	36327776.65	90	147.967203	138.886046
43	3250711.65	33077065.00	91	78.482054	60.404892
44	3013051.77	30064013.23	92	37.966255	22.438034
45	2789696.21	27274317.02	93	16.382421	6.05621287
46	2579919.62	24694397.40	94	5.03252433	1.02368854
47	2383029.48	22311367.92	95	.96512512	.05856342

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age One Year.

Ages.	D.	N.	Ages.	D.	N.
0 & 1	59381609.99	654137935.52	47 & 48	2079099.55	18791443.88
1.. 2	45195207.02	608942728.50	48..49	1913396.81	16878047.04
2.. 3	38836058.57	570106669.93	49..50	1756431.57	15121615.47
3.. 4	34746790.80	535359879.13	50..51	1607982.67	13513632.80
4.. 5	31740808.35	503619070.78	51..52	1468918.98	12044713.82
5.. 6	29218545.07	474400525.71	52..53	1339317.58	10705396.24
6.. 7	27198206.91	447202318.80	53..54	1218665.66	9486730.58
7.. 8	25559250.65	421643068.15	54..55	1106474.92	8380255.66
8.. 9	24217373.41	397425694.74	55..56	1002279.89	7377975.77
9..10	23052841.64	374372853.10	56..57	905637.49	6472333.28
10..11	21979126.56	352393726.54	57..58	816125.43	5656212.85
11..12	20959463.65	331434262.89	58..59	733341.98	4922870.87
12..13	19983858.58	311450404.31	59..60	656904.62	4265966.25
13..14	19050513.35	292399890.96	60..61	586449.37	3679516.88
14..15	18157700.53	274242190.43	61..62	521920.91	3157595.97
15..16	17294008.05	256948182.38	62..63	462915.45	2694680.52
16..17	16443430.74	240504751.64	63..64	409076.28	2285604.24
17..18	15601393.56	224903358.68	64..65	360043.57	1925560.07
18..19	14772771.07	210130587.01	65..66	315286.57	1610274.10
19..20	13959036.67	196171550.34	66..67	274546.40	1335727.70
20..21	13164268.60	183007281.74	67..68	237577.08	1098150.62
21..22	12401964.65	170605317.09	68..69	204145.02	894005.60
22..23	11678433.19	158926883.90	69..70	174028.44	719977.16
23..24	10991900.89	147934983.01	70..71	147016.83	572960.328
24..25	10340670.70	137594312.31	71..72	122910.525	450049.8027
25..26	9723115.80	127871196.51	72..73	101520.0657	348529.7370
26..27	9137679.51	118733517.00	73..74	82665.8815	265863.8555
27..28	8582871.88	110150645.12	74..75	66177.7643	199686.0912
28..29	8057266.25	102093378.87	75..76	52126.1096	147559.9816
29..30	7559496.93	94533881.94	76..77	40513.2172	107046.7644
30..31	7088257.59	87445624.35	77..78	31116.9484	75929.8160
31..32	6642297.67	80803326.68	78..79	23536.1889	52393.6272
32..33	6220420.58	74582906.10	79..80	17373.3540	35020.2732
33..34	5821482.15	68761423.95	80..81	12443.7051	22576.5681
34..35	5444387.47	63317036.48	81..82	8599.7200	13976.8481
35..36	5088089.34	58228947.14	82..83	5646.5972	8330.2509
36..37	4751586.57	53477360.57	83..84	3528.2934	4801.9575
37..38	4433921.93	49043438.64	84..85	2122.6562	2679.3013
38..39	4134179.51	44909259.13	85..86	1229.8509	1449.45036
39..40	3850403.01	41058856.12	86..87	683.47921	7659.71153
40..41	3580909.24	37477946.88	87..88	370.643837	395.327315
41..42	3325199.17	34152747.71	88..89	199.434055	195.893260
42..43	3083712.63	31069035.08	89..90	106.181602	89.711658
43..44	2856690.16	28212344.92	90..91	53.785532	35.926126
44..45	2643400.28	25568944.64	91..92	24.573631	11.3524951
45..46	2443144.71	23125799.93	92..93	8.9467099	2.40578520
46..47	2255256.50	20870543.43	93..94	2.17153152	.23425368

TABLE XXXIII.　　　　　861

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 2	53678228.1	622813960.3	47 & 49	1964229.5	17530466.9
1.. 3	41711106.5	581102853.8	48.. 50	1804999.3	15725467.6
2.. 4	36552587.9	544550265.9	49.. 51	1654901.2	14070566.4
3.. 5	32741438.5	511808827.4	50.. 52	1513629.8	12556936.6
4.. 6	30104978.0	481703849.4	51.. 53	1381363.6	11175573.0
5.. 7	27840865.1	453862984.3	52.. 54	1258163.6	9917409.4
6.. 8	26042745.0	427820239.3	53.. 55	1143538.2	8773871.2
7.. 9	24555191.8	403265047.5	54.. 56	1037016.6	7736854.6
8..10	23296571.9	379968475.6	55.. 57	938151.6	6798703.0
9..11	22182382.5	357786093.1	56.. 58	846517.0	5952186.0
10..12	21147508.7	336638584.4	57.. 59	761707.0	5190479.0
11..13	20164773.1	316473811.3	58.. 60	683335.6	4507143.4
12..14	19224554.4	297249256.9	59.. 61	611034.4	3896109.0
13..15	18325114.0	278924142.9	60.. 62	544758.3	3351350.7
14..16	17454942.2	261469200.7	61.. 63	483827.9	2867522.8
15..17	16607246.6	244861954.1	62.. 64	428430.8	2439092.0
16..18	15773358.4	229088595.7	63.. 65	377692.6	2061399.4
17..19	14951783.5	214136812.2	64.. 66	331538.3	1729861.1
18..20	14141276.2	199995536.0	65.. 67	289467.2	1440393.9
19..21	13351566.7	186643949.3	66.. 68	251231.1	1189162.9
20..22	12588553.4	174055395.9	67.. 69	216592.9	972570.0
21..23	11856820.9	162198575.0	68.. 70	185323.9	797241.4
22..24	11162405.8	151036169.2	69.. 71	157226.3	630014.84
23..25	10503600.9	140532568.3	70.. 72	132082.94	497931.90
24..26	9878768.4	130653799.9	71.. 73	109707.17	388224.734
25..27	9288340.4	121367459.5	72.. 74	89917.281	298307.453
26..28	8724815.4	112642644.1	73.. 75	72541.009	225766.444
27..29	8192757.7	104449886.4	74.. 76	57671.444	168095.000
28..30	7688792.8	96761093.6	75.. 77	45134.724	122960.276
29..31	7211603.0	89549490.6	76.. 78	34890.264	88070.012
30..32	6759929.9	82789560.7	77.. 79	26533.306	61536.706
31..33	6332567.2	76455993.5	78.. 80	19781.170	41755.536
32..34	5926363.5	70528630.0	79.. 81	14374.625	27380.911
33..35	5546215.5	64982414.5	80.. 82	10090.996	17269.915
34..36	5185066.3	59797348.2	81.. 83	6760.286	10529.629
35..37	4843910.2	54953438.0	82.. 84	4357.591	6172.038
36..38	4521760.4	50431657.6	83.. 85	2670.436	3501.602
37..39	4217754.6	46213903.0	84.. 86	1577.601	1924.0010
38..40	3929847.2	42284055.8	85.. 87	892.8332	1031.1678
39..41	3657377.1	38626678.7	86.. 88	495.6803	535.48752
40..42	3398731.7	35227947.0	87.. 89	266.98127	268.50325
41..43	3154373.0	32073574.0	88.. 90	143.11435	125.38990
42..44	2923683.7	29149890.3	89.. 91	72.76864	52.62026
43..45	2706861.0	26443009.3	90.. 92	34.81263	17.807637
44..46	2503259.5	23939749.8	91.. 93	13.420066	4.387571
45..47	2312148.5	21627601.3	92.. 94	3.860501	.527070
46..48	2132904.9	19494696.4			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 3	72294955.0	643810391.4	47 & 50	2015062.2	18182245.2
1 .. 4	49540171.9	594270219.5	48.. 51	1852952.3	16329292.9
2 .. 5	39258589.8	555011629.7	49.. 52	1700661.5	14628631.4
3 .. 6	34443018.1	520568611.6	50.. 53	1557795.6	13070835.8
4 .. 7	31054038.8	489514572.8	51.. 54	1423409.5	11647426.3
5 .. 8	28685501.4	460829071.4	52.. 55	1297661.7	10349764.6
6 .. 9	26658101.0	434170970.4	53.. 56	1180601.5	9169163.1
7 ..10	25019692.4	409151278.0	54.. 57	1071753.3	8097409.8
8 ..11	23621545.9	385529732.1	55.. 58	970665.7	7126744.1
9 ..12	22416910.0	363112822.1	56.. 59	876908.6	6249835.5
10..13	21343075.2	341769746.9	57.. 60	790072.1	5459763.4
11..14	20345687.9	321424059.0	58.. 61	709766.4	4749997.0
12..15	19398595.3	302025463.7	59.. 62	635619.7	4114377.3
13..16	18492527.8	283532935.9	60.. 63	567595.8	3546781.5
14..17	17615876.6	265917059.3	61.. 64	504998.7	3041782.8
15..18	16761790.2	249155269.1	62.. 65	447785.5	2593997.3
16..19	15930499.0	233224770.1	63.. 66	395562.4	2198434.9
17..20	15116588.5	218108181.6	64.. 67	347790.3	1850644.6
18..21	14312636.3	203795545.3	65.. 68	304388.2	1546256.4
19..22	13525896.2	190269649.1	66.. 69	264885.0	1281371.4
20..23	12767679.0	177501970.1	67.. 70	229040.9	1052330.5
21..24	12035208.4	165466761.7	68.. 71	196629.3	855701.2
22..25	11332911.0	154133850.7	69.. 72	167435.8	688265.40
23..26	10666531.6	143467319.1	70.. 73	141255.37	547010.03
24..27	10034421.2	133432697.9	71.. 74	117894.28	429115.75
25..28	9435001.2	123997896.7	72.. 75	97168.67	331947.084
26..29	8866759.2	115131137.5	73.. 76	78904.255	253042.829
27..30	8328249.9	106802387.6	74.. 77	63216.775	189826.054
28..31	7818088.7	98984798.9	75.. 78	49936.290	139889.764
29..32	7334948.5	91649850.4	76.. 79	38870.338	101019.426
30..33	6877562.0	84772288.4	77.. 80	29750.800	71268.626
31..34	6444714.1	78327574.3	78.. 81	22300.121	48968.505
32..35	6035245.1	72292329.2	79.. 82	16366.844	32601.561
33..36	5648043.2	66644286.0	80.. 83	11656.839	20944.822
34..37	5262043.9	61362242.1	81.. 84	7932.590	13012.232
35..38	4936233.8	56426008.3	82.. 85	5217.047	7795.185
36..39	4609638.8	51816369.5	83.. 86	3298.103	4497.082
37..40	4301329.6	47515039.9	84.. 87	1984.725	2512.357
38..41	4009291.5	43505748.4	85.. 88	1145.2894	1367.0685
39..42	3732838.8	39772909.6	86.. 89	647.5102	719.5581
40..43	3471309.3	36301600.3	87.. 90	357.0513	362.50701
41..44	3224127.9	33077472.4	88.. 91	191.58857	170.91844
42..45	2990677.6	30086794.8	89.. 92	98.07947	72.83897
43..46	2770361.7	27316433.1	90.. 93	47.09945	25.73952
44..47	2563374.8	24753058.3	91.. 94	19.011760	6.72776
45..48	2369040.5	22384017.8	92.. 95	5.790751	.33701
46..49	2186710.4	20197307.4			

TABLE XXXIII. 863

reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Four Years.

L.	D.	N.	Ages.	D.	N.
4	66721734.	614160335.6	46 & 50	2065895.0	18833250.5
5	46627324.2	567533011.4	47.. 51	1900905.3	16932345.2
6	36992847.8	530540163.6	48.. 52	1745842.6	15186502.6
7	32667923.9	497872239.7	49.. 53	1600870.7	13585631.9
8	29589813.2	468282426.5	50.. 54	1464942.8	12120689.1
9	27466854.6	440815571.9	51.. 55	1337160.0	10783529.1
10	25610875.0	415204696.9	52.. 56	1217664.8	9565864.3
11	24068385.1	391136311.8	53.. 57	1106469.9	8459374.4
12	22729613.2	368406698.6	54.. 58	1003179.9	7456194.5
13	21568728.8	346837969.8	55.. 59	907300.3	6548894.2
4	20533839.4	326304130.4	56.. 60	818437.3	5730456.9
5	19572636.1	306731494.3	57.. 61	736197.3	4994259.6
6	18659941.6	288071552.7	58.. 62	660204.9	4334054.7
7	17776811.0	270294741.7	59.. 63	590433.3	3743621.4
8	16916333.7	253378408.0	60.. 64	526169.4	3217452.0
9	16078744.8	237299663.2	61.. 65	467379.1	2750072.9
0	15267186.1	222032477.1	62.. 66	413432.2	2336640.7
1	14470396.3	207562080.8	63.. 67	364245.2	1972395.5
2	13689799.1	193872281.7	64.. 68	319309.2	1653086.3
3	12934365.3	180937916.4	65.. 69	278538.8	1374547.5
4	12206460.5	168731455.9	66.. 70	241488.7	1133058.8
5	11503416.1	157228039.8	67.. 71	207929.9	925128.9
6	10829462.2	146398577.6	68.. 72	177645.2	747483.72
7	10190074.1	136208503.5	69.. 73	150427.79	597055.93
8	9563661.9	126624841.6	70.. 74	126081.38	470974.55
9	9006703.1	117616138.5	71.. 75	104420.06	366554.49
0	8463742.0	109152396.5	72.. 76	85267.50	281286.990
1	7947384.6	101205011.9	73.. 77	68762.107	212524.883
2	7456294.1	93746717.8	74.. 78	54737.857	157787.026
3	6995194.2	86751523.6	75.. 79	43005.480	114781.546
4	6556861.1	80194662.5	76.. 80	33144.595	81636.951
5	6142126.7	74052535.8	77.. 81	25604.288	56632.663
6	5749870.9	68302664.9	78.. 82	18451.011	38181.652
7	5379021.4	62923643.5	79.. 83	13272.393	24909.259
8	5028557.4	57895086.1	80.. 84	9163.510	15745.749
9	4697497.3	53197588.8	81.. 85	6121.737	9624.012
0	4384904.7	48812684.1	82.. 86	3948.594	5675.418
1	4088735.9	44723948.2	83.. 87	2451.219	3224.1991
2	3808300.5	40915647.7	84.. 88	1440.8480	1783.3511
3	3542932.0	37372715.7	85.. 89	830.5993	952.7518
4	3292976.9	34079738.8	86.. 90	466.4183	486.3335
5	3056812.6	31022926.2	87.. 91	256.2209	230.11267
6	2833842.3	28189083.9	88.. 92	131.29994	98.81273
7	2623490.0	25565593.9	89.. 93	63.48186	35.330876
8	2425932.5	23139661.4	90.. 94	25.721792	9.609086
9	2240515.9	20899145.5	91.. 95	8.203564	1.405522

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 5	62798650.	586411983.1	46 & 51	1918858.3	17534525.8
1.. 6	43936308.3	542475674.8	47.. 52	1791023.7	15743502.1
2.. 7	35086342.7	507389332.1	48.. 53	1643400.7	14100101.4
3.. 8	31127602.0	476261730.1	49.. 54	1505450.4	12594651.0
4.. 9	28332748.4	447928981.7	50.. 55	1376176.6	11218474.4
5..10	26387857.9	421541123.8	51.. 56	1254728.1	9963746.3
6..11	24637089.5	396904034.3	52.. 57	1141226.4	8822519.9
7..12	23159580.1	373744454.2	53.. 58	1035694.0	7786825.9
8..13	21869600.3	351874853.9	54.. 59	937691.9	6849134.0
9..14	20750937.3	331123916.6	55.. 60	846602.3	6002331.7
10..15	19753638.7	311370277.9	56.. 61	762628.2	5239703.5
11..16	18827355.3	292542922.6	57.. 62	684790.2	4554913.3
12..17	17937745.4	274605177.2	58.. 63	613270.9	3941642.4
13..18	17070877.2	257534300.0	59.. 64	547340.1	3394302.5
14..19	16226990.7	241307309.3	60.. 65	486972.7	2907329.6
15..20	15409259.3	225898050.0	61.. 66	431522.7	2475806.9
16..21	14614556.2	211283493.8	62.. 67	380700.3	2095106.6
17..22	13840694.0	197442799.8	63.. 68	334416.7	1760689.9
18..23	13091100.4	184351699.4	64.. 69	292192.6	1468497.3
19..24	12365819.8	171985879.6	65.. 70	253936.5	1214560.8
20..25	11667101.1	160318778.5	66.. 71	219230.5	995330.3
21..26	10992393.0	149326385.5	67.. 72	187854.8	807475.52
22..27	10345727.0	138980658.5	68.. 73	159600.22	647875.30
23..28	9732322.6	129248335.9	69.. 74	134268.48	513606.82
24..29	9150647.0	120097688.9	70.. 75	111671.45	401935.37
25..30	8599234.2	111498454.7	71.. 76	91630.75	310304.62
26..31	8076680.4	103421774.3	72.. 77	74307.43	235997.192
27..32	7581639.7	95840134.6	73.. 78	59539.423	176457.769
28..33	7112826.4	88727308.2	74.. 79	47140.623	129317.146
29..34	6669008.1	82058300.1	75.. 80	36670.616	92646.530
30..35	6249008.2	75809291.9	76.. 81	27856.630	64789.900
31..36	5851698.6	69957593.3	77.. 82	20688.426	44101.474
32..37	5475999.0	64481594.3	78.. 83	14962.511	29138.963
33..38	5120881.0	59360713.3	79.. 84	10433.506	18705.457
34..39	4785355.6	54575357.7	80.. 85	7071.661	11633.796
35..40	4468479.7	50106878.0	81.. 86	4633.321	7000.4754
36..41	4168180.2	45938697.8	82.. 87	2934.678	4065.7974
37..42	3883762.2	42054935.6	83.. 88	1779.5088	2286.2886
38..43	3614554.5	38440381.1	84.. 89	1044.9475	1241.3411
39..44	3360920.2	35079460.9	85.. 90	598.3020	643.0391
40..45	3122088.8	31957372.1	86.. 91	334.7029	308.3362
41..46	2896509.2	29060862.9	87.. 92	175.5939	132.74237
42..47	2683605.2	26377257.7	88.. 93	84.98378	47.75859
43..48	2482824.5	23894433.2	89.. 94	34.668503	13.09009
44..49	2294321.4	21600111.8	90.. 95	11.098940	1.99115
45..50	2116727.7	19483384.1			

TABLE XXXIII. 865

'xpanatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Six Years.

re.	D.	N.	Ages.	D.	N.
6	59174334.	560457782.5	47 & 53	1685930.6	14613626.1
7	41671957.2	518785825.3	48.. 54	1545445.4	13068180.7
8	33431990.1	485353335.2	49.. 55	1414229.8	11653950.9
9	29805207.4	455548627.8	50.. 56	1291339.4	10362611.5
10	27219736.3	428328891.5	51.. 57	1175963.2	9186648.3
11	25394529.6	402944361.9	52.. 58	1058208.1	8118440.2
12	23706910.6	379237551.3	53.. 59	968053.4	7150356.8
13	22283298.8	356954252.5	54.. 60	875167.5	6275189.3
14	21040401.2	335913851.3	55.. 61	789059.1	5486130.2
15	19962487.8	315951363.5	56.. 62	709375.5	4776754.7
16	19001465.7	296949897.8	57.. 63	636108.4	4140646.3
17	18098679.7	278851218.1	58.. 64	568510.8	3572135.5
18	17225420.7	261625797.4	59.. 65	506566.3	3065569.2
19	16375236.5	245250560.9	60.. 66	449613.1	2615956.1
20	15551332.5	229699228.4	61.. 67	397358.4	2218597.7
21	14750556.2	214948672.2	62.. 68	349524.1	1869073.6
22	13978580.6	200970091.6	63.. 69	306017.2	1563056.4
23	13235396.0	187734695.6	64.. 70	266384.5	1296671.9
24	12515665.3	175219030.3	65.. 71	230531.1	1066140.86
25	11819419.0	163399611.3	66.. 72	198004.3	868076.56
26	11148606.6	152250804.7	67.. 73	168772.64	699303.92
27	10501379.8	141749424.9	68.. 74	142455.57	556848.35
28	9880993.3	131868441.6	69.. 75	118922.85	437925.50
29	9292590.8	122575850.8	70.. 76	97994.00	339931.50
30	8734726.2	113841124.6	71.. 77	79852.76	260078.74
31	8205976.2	105635148.4	72.. 78	64340.99	195737.750
32	7704985.2	97930163.2	73.. 79	51275.765	144461.955
33	7230458.6	90699704.6	74.. 80	40196.637	104265.318
34	6781155.2	83918549.4	75.. 81	30820.101	73445.247
35	6355889.8	77562659.6	76.. 82	23048.439	50396.808
36	5953326.3	71609133.3	77.. 83	16776.902	33619.906
37	5572976.5	66036156.9	78.. 84	11762.117	21857.769
38	5213204.5	60822952.3	79.. 85	8051.742	13806.047
39	4873214.1	55949738.2	80.. 86	5352.284	8453.638
40	4552054.8	51397683.4	81.. 87	3443.582	5010.818
41	4247624.6	47150058.8	82.. 88	2130.4846	2879.972
42	3959223.9	43190834.9	83.. 89	1290.5548	1589.424
43	3686177.3	39504657.6	84.. 90	752.7026	836.398
44	3428863.2	36075794.4	85.. 91	429.3430	407.964
45	3186506.1	32889268.3	86.. 92	229.3794	177.7174
46	2958362.2	29930926.1	87.. 93	113.6530	64.064417
47	2742949.7	27187976.4	88.. 94	46.411060	17.653357
48	2539716.5	24648259.9	89.. 95	14.959441	2.093916
49	2348126.8	22300133.1			
50	2167560.5	20132572.6			
51	1996811.2	18135761.4			
52	1836204.7	16299556.7			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 7	56124658.	535957178.7	46 & 53	1728460.6	15126155.1
1.. 8	39707087.1	496250091.6	47.. 54	1585440.3	13540714.8
2.. 9	32011698.2	464238393.4	48.. 55	1451801.3	12088913.5
3..10	28634351.7	435604041.7	49.. 56	1327046.7	10761866.8
4..11	26184778.1	409419263.6	50.. 57	1210276.3	9551590.5
5..12	24426028.0	384993235.6	51.. 58	1100722.3	8450868.2
6..13	22809823.9	362183411.7	52.. 59	998475.0	7452393.2
7..14	21438413.8	340744997.9	53.. 60	903532.6	6548860.6
8..15	20240953.2	320504044.7	54.. 61	815490.1	5733370.5
9..16	19202362.3	301301682.4	55.. 62	733960.8	4999409.7
10..17	18266051.5	283035630.9	56.. 63	658945.9	4340463.8
11..18	17379964.2	265655666.7	57.. 64	589681.5	3750782.3
12..19	16523482.4	249132184.3	58.. 65	526160.0	3224622.3
13..20	15693405.7	233438778.6	59.. 66	467703.6	2756918.7
14..21	14856556.1	218552222.5	60.. 67	414016.5	2342902.2
15..22	14108662.3	204443560.2	61.. 68	364818.3	1978083.9
16..23	13367252.4	191076307.8	62.. 69	319841.7	1658242.2
17..24	12653618.4	178422689.4	63.. 70	278987.9	1379254.3
18..25	11962643.4	166460046.0	64.. 71	241831.7	1137422.6
19..26	11294357.9	155165688.1	65.. 72	208273.8	929148.85
20..27	10650806.5	144514881.6	66.. 73	177945.08	751203.77
21..28	10029644.1	134485237.5	67.. 74	150642.68	600561.09
22..29	9434534.6	125050702.9	68.. 75	126174.25	474386.84
23..30	8870218.4	116180484.5	69.. 76	104357.24	370029.60
24..31	8335272.1	107845212.4	70.. 77	85398.10	284631.50
25..32	7828330.7	100016881.7	71.. 78	69142.56	215488.94
26..33	7348090.7	92668791.0	72.. 79	55410.90	160078.049
27..34	6893302.1	85775488.9	73.. 80	43722.657	116355.392
28..35	6462771.3	79312717.6	74.. 81	33783.572	82571.820
29..36	6055354.0	73257363.6	75.. 82	25500.401	57071.419
30..37	5669954.1	67587409.5	76.. 83	18690.722	38380.697
31..38	5305528.1	62281881.4	77.. 84	13188.420	25192.277
32..39	4961072.5	57320808.9	78.. 85	9077.058	16115.219
33..40	4635629.8	52685179.1	79.. 86	6094.072	10021.147
34..41	4327068.9	48358110.2	80.. 87	3977.931	6043.2163
35..42	4034685.6	44323424.6	81.. 88	2499.9328	3543.2835
36..43	3757799.8	40565624.8	82.. 89	1545.0934	1998.1901
37..44	3496806.4	37068818.4	83.. 90	929.6198	1068.5703
38..45	3250923.3	33817895.1	84.. 91	540.1413	528.4290
39..46	3019401.3	30798493.8	85.. 92	294.2384	234.1906
40..47	2801523.5	27996970.3	86.. 93	148.4656	85.725079
41..48	2595879.0	25401091.3	87.. 94	62.06780	23.657379
42..49	2401932.3	22999159.0	88.. 95	20.026348	3.630931
43..50	2218393.3	20780765.7			
44..51	2044764.2	18736001.5			
45..52	1881385.8	16854615.7			

TABLE XXXIII.   867

Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Eight Years.

D.	N.	Ages.	D.	N.
8331.	512683357.4	45 & 53	1770990.4	15637657.2
0210.0	474663147.4	46.. 54	1625435.3	14012221.9
4163.7	443908983.7	47.. 55	1489372.8	12522849.1
5606.6	416363377.1	48.. 56	1362302.1	11160547.0
6059.7	391167317.4	49.. 57	1243742.1	9916804.9
1828.5	367665488.9	50.. 58	1132839.9	8783965.0
4975.5	345720513.4	51.. 59	1028866.5	7755098.5
3843.1	325096670.3	52.. 60	931897.6	6823200.9
0224.4	305626445.9	53.. 61	841921.0	5981279.9
9172.8	287167273.1	54.. 62	758546.1	5222733.8
0689.5	269626583.6	55.. 63	681783.3	4540950.5
1728.2	252954855.4	56.. 64	610852.1	3930098.4
5478.9	237119376.5	57.. 65	545753.6	3384344.8
2556.2	222096820.3	58.. 66	485794.0	2898550.8
8744.0	207858076.3	59.. 67	430674.9	2467875.9
1645.3	194366431.0	60.. 68	380112.3	2087763.6
9678.8	181586752.2	61.. 69	333837.0	1753926.6
4500.7	169492251.5	62.. 70	291591.4	1462335.2
1219.7	158061031.8	63.. 71	253273.4	1209061.8
9856.4	147271175.4	64.. 72	218483.4	990578.45
2358.4	137098817.0	65.. 73	187117.50	803460.95
6478.5	127522338.5	66.. 74	158829.79	644631.16
5710.5	118516628.0	67.. 75	133425.64	511205.52
4567.9	110052060.1	68.. 76	110720.48	400485.04
1676.2	102100383.9	69.. 77	90943.43	309541.61
5722.9	94634661.0	70.. 78	73944.13	235597.48
5449.1	87629211.9	71.. 79	59546.05	176051.43
9652.9	81059559.0	72.. 80	47248.67	128802.761
7181.8	74902377.2	73.. 81	36747.043	92055.718
6931.6	69135445.6	74.. 82	27952.362	64103.356
7851.7	63737593.9	75.. 83	20679.085	43424.271
8931.0	58688662.9	76.. 84	14692.877	28731.394
9204.9	53969458.0	77.. 85	10177.765	18553.629
6513.3	49562944.7	78.. 86	6870.096	11683.533
0147.3	45452797.4	79.. 87	4529.244	7154.2891
9422.5	41623374.9	80.. 88	2887.8534	4266.4357
4749.5	39058625.4	81.. 89	1813.0287	2453.4070
5340.5	34743284.9	82.. 90	1112.9705	1340.4365
0440.4	31662844.5	83.. 91	667.0975	673.3390
9326.7	28803517.8	84.. 92	370.1709	303.1681
1312.2	26152205.6	85.. 93	190.4456	112.72255
5048.0	23697157.6	86.. 94	81.07957	31.64298
9226.0	21427931.6	87.. 95	26.78222	4.860762
2717.2	19335214.4			
6566.8	17408647.6			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 9	51206410.	490409996.8	45 & 54	1665430.1	14482690.2
1..10	36526639.5	453883357.3	46.. 55	1526944.3	12955745.9
2..11	29584818.2	424298539.1	47.. 56	1397557.4	11558188.5
3..12	26505504.2	397793034.9	48.. 57	1276784.3	10281404.2
4..13	24242724.6	373550310.3	49.. 58	1164164.5	9117239.7
5..14	22610742.2	350939568.1	50.. 59	1058887.6	8058352.1
6..15	21111157.5	329828410.6	51.. 60	960262.8	7098089.3
7..16	19838534.7	309989875.9	52.. 61	868351.9	6229737.4
8..17	18716667.8	291273208.1	53.. 62	783131.4	5446606.0
9..18	17726141.8	273547066.3	54.. 63	704621.0	4741985.0
10..19	16825904.0	256721162.3	55.. 64	632022.9	4109962.1
11..20	15977552.1	240743610.2	56.. 65	565347.1	3544615.0
12..21	15158556.1	225585054.1	57.. 66	503884.3	3040730.7
13..22	14368825.7	211216228.4	58.. 67	447333.0	2593397.7
14..23	13616038.1	197600190.3	59.. 68	395406.2	2197991.5
15..24	12898603.9	184701536.4	60.. 69	347832.2	1850159.3
16..25	12214991.0	172486595.4	61.. 70	304350.4	1545808.9
17..26	11557219.6	160929375.8	62.. 71	264715.1	1281093.8
18..27	10920604.8	150008771.0	63.. 72	228820.4	1052273.47
19..28	10305162.0	139703609.0	64.. 73	196289.92	855983.55
20..29	9712744.7	129990864.3	65.. 74	167016.89	688966.66
21..30	9141202.7	120849661.6	66.. 75	140677.03	548289.63
22..31	8593863.7	112255797.9	67.. 76	117083.73	431205.90
23..32	8075021.9	104180776.0	68.. 77	96488.75	334717.15
24..33	7583355.2	96597420.8	69.. 78	78745.69	255971.46
25..34	7117596.1	89479824.7	70.. 79	63681.20	192290.26
26..35	6676534.4	82803290.3	71.. 80	50774.70	141515.56
27..36	6259009.4	76544280.9	72.. 81	39710.51	101805.050
28..37	5863909.2	70680371.7	73.. 82	30404.324	71400.726
29..38	5490175.3	65190196.4	74.. 83	22667.459	48733.267
30..39	5136789.3	60053407.1	75.. 84	16255.949	32477.318
31..40	4802779.9	55250627.2	76.. 85	11338.784	21138.534
32..41	4485957.6	50764669.6	77.. 86	7703.181	13435.353
33..42	4185669.0	46579060.6	78.. 87	5106.001	8329.352
34..43	3901045.0	42678015.6	79.. 88	3288.0890	5041.2637
35..44	3632692.7	39045322.9	80.. 89	2094.3607	2946.9030
36..45	3379757.8	35665565.1	81.. 90	1305.9712	1640.9318
37..46	3141479.4	32524085.7	82.. 91	798.6703	842.2615
38..47	2917129.7	29606956.0	83.. 92	457.1769	385.0846
39..48	2706016.1	26900939.9	84.. 93	239.5928	145.49182
40..49	2507473.9	24393166.0	85.. 94	104.00550	41.48632
41..50	2319407.1	22074058.9	86.. 95	34.98579	6.50053
42..51	2140670.2	19933388.7			
43..52	1971748.0	17961640.7			
44..53	1813520.4	16148120.3			

TABLE XXXIII.   869

reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Ten Years.

a.	D.	N.	Ages.	D.	N.
10	49194838.	468977864.9	45 & 55	1564515.7	13387608.7
11	35137811.1	433840053.8	46.. 56	1432812.7	11954796.0
12	28167736.7	405372317.1	47.. 57	1309826.4	10644969.6
13	25502624.2	379869692.9	48.. 58	1195992.5	9449877.1
14	23323546.9	356546146.0	49.. 59	1088167.3	8361709.8
15	21751627.9	334794518.1	50.. 60	988282.0	7373427.8
16	20307293.3	314487224.8	51.. 61	894782.8	6478645.0
7	19070723.4	295416501.4	52.. 62	807716.7	5670928.3
8	17973411.4	277443090.0	53.. 63	727458.5	4943469.8
9	17003799.0	260439291.0	54.. 64	653193.7	4290276.1
0	16125308.2	244313982.8	55.. 65	584940.7	3705335.4
1	15294556.1	229019426.7	56.. 66	521974.8	3183360.6
2	14498907.4	214520519.3	57.. 67	463991.1	2719369.5
3	13740430.9	200780088.4	58.. 68	410700.3	2308669.2
4	13017528.8	187762559.6	59.. 69	361827.4	1946841.8
5	12328661.2	175433898.4	60.. 70	317109.4	1629732.4
6	11672357.2	163761541.2	61.. 71	276298.2	1353434.23
7	11040976.4	152720564.8	62.. 72	239157.5	1114276.73
8	10430037.0	142290527.8	63.. 73	205577.01	908699.72
9	9839547.8	132450980.0	64.. 74	175204.00	733495.72
0	9271275.1	123179704.9	65.. 75	147928.42	585567.30
1	8723159.6	114456545.3	66.. 76	123446.98	462120.32
2	8198367.4	106258177.9	67.. 77	102034.09	360086.23
3	7700987.4	98557190.5	68.. 78	83547.25	276538.98
4	7229743.1	91327447.4	69.. 79	67816.33	208722.65
5	6783446.0	84544031.4	70.. 80	54300.72	154421.932
6	6366837.1	78183194.3	71.. 81	42673.99	111747.942
7	5960886.7	72222307.6	72.. 82	32856.29	78891.652
8	5582498.8	66639808.8	73.. 83	24655.822	54235.820
9	5224047.8	61415161.0	74.. 84	17819.021	36416.799
0	4886353.0	56528806.0	75.. 85	12545.037	23871.762
1	4565402.0	51963404.0	76.. 86	8581.914	15289.848
2	4261070.7	47702333.3	77.. 87	5725.168	9564.6805
3	3972667.7	43729665.6	78.. 88	3706.7969	5857.8836
4	3700635.7	40029029.9	79.. 89	2384.6239	3473.2597
5	3444175.0	36584854.9	80.. 90	1503.6219	1964.6378
6	3202518.6	33382336.3	81.. 91	937.1681	1027.4697
7	2974932.9	30407403.4	82.. 92	547.3467	480.1230
8	2760719.9	27646683.5	83.. 93	295.9074	184.21566
9	2559209.9	25087473.6	84.. 94	130.84564	53.37002
0	2368936.3	22718537.3	85.. 95	44.87833	8.49170
1	2188008.4	20530528.9			
2	2016929.0	18513599.9			
3	1856050.4	16657549.5			
4	1705425.1	14952124.4			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Eleven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 11	47324335.0	448307916.5	45 & 56	1468068.0	12350387.3
1..12	33811032.6	414496883.9	46.. 57	1342868.7	11007518.6
2..13	27390593.2	387106290.7	47.. 58	1226020.6	9781498.0
3..14	24535676.7	362570614.0	48.. 59	1117076.4	8664421.6
4..15	22437349.0	340133265.0	49.. 60	1015609.4	7648812.2
5..16	20923376.0	319209889.0	50.. 61	920891.3	6727920.9
6..17	19521339.6	299688549.4	51.. 62	832301.9	5895619.0
7..18	18313407.2	281375142.2	52.. 63	750295.9	5145323.1
8..19	17240992.4	264134149.8	53.. 64	674364.3	4470958.8
9..20	16295796.0	247838353.8	54.. 65	604534.4	3866424.4
10..21	15435996.0	232402357.8	55.. 66	540065.3	3326359.1
11..22	14628969.1	217773368.7	56.. 67	483649.3	2845709.8
12..23	13864823.7	203908545.0	57.. 68	425994.3	2419715.5
13..24	13136453.9	190772091.1	58.. 69	375822.6	2043892.9
14..25	12442331.3	178329759.8	59.. 70	329868.6	1714024.3
15..26	11780977.8	166548782.0	60.. 71	287881.3	1426143.0
16..27	11150971.1	155397810.9	61.. 72	249622.3	1176520.73
17..28	10545001.3	144852809.6	62.. 73	214864.08	961656.70
18..29	9958780.6	134894029.0	63.. 74	183493.42	778163.28
19..30	9392314.7	125501714.3	64.. 75	155179.81	622983.47
20..31	8847283.7	116654430.6	65.. 76	129810.23	493173.21
21..32	8321712.9	108332717.7	66.. 77	107579.42	385593.82
22..33	7818619.5	100514098.2	67.. 78	88348.82	297245.00
23..34	7341890.1	93172208.1	68.. 79	71951.47	225293.53
24..35	6890297.5	86281910.6	69.. 80	57826.74	167466.79
25..36	6462664.8	79819245.8	70.. 81	45637.46	121829.33
26..37	6057864.3	73761381.5	71.. 82	35308.25	86521.08
27..38	5674822.4	68086559.1	72.. 83	26644.20	59876.886
28..39	5312506.3	62774052.8	73.. 84	19382.093	40494.793
29..40	4969930.0	57804122.8	74.. 85	13751.291	26743.502
30..41	4644846.3	53159276.5	75.. 86	9494.884	17248.618
31..42	4336532.4	48822744.1	76.. 87	6378.261	10870.3576
32..43	4044290.2	44778453.9	77.. 88	4156.2923	6714.0653
33..44	3768578.9	41009875.0	78.. 89	2688.2840	4025.7813
34..45	3508592.2	37501282.8	79.. 90	1717.7060	2308.0753
35..46	3263557.7	34237725.1	80.. 91	1082.5908	1225.4845
36..47	3032735.9	31204989.2	81.. 92	642.2623	583.2222
37..48	2815423.7	28389565.5	82.. 93	354.2697	228.95256
38..49	2610946.0	25778619.5	83.. 94	161.59995	67.35261
39..50	2417814.0	23360805.5	84.. 95	56.45982	10.89279
40..51	2234731.8	21126073.7			
41..52	2061530.8	19064542.9			
42..53	1898580.3	17165962.6			
43..54	1745420.0	15420542.6			
44..55	1602087.3	13818455.3			

TABLE XXXIII. 871

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twelve Years.

Ages	D.	N.	Ages.	D.	N.
0 & 12	45537401.	428359742.8	45 & 57	1375910.9	11368080.1
1..13	32531735.7	395828007.1	46.. 58	1256948.7	10111131.4
2..14	26352062.1	369475945.0	47.. 59	1145985.4	8965146.0
3..15	23603422.8	345872522.2	48.. 60	1042590.8	7922555.2
4..16	21582986.4	324289535.8	49.. 61	946355.2	6976200.0
5..17	20113578.1	304175957.7	50.. 62	856587.4	6119612.6
6..18	18746129.0	285429828.7	51.. 63	773133.4	5346479.2
7..19	17567133.2	267862695.5	52.. 64	695535.0	4650944.2
8..20	16523113.1	251339582.4	53.. 65	624128.0	4026816.2
9..21	15599196.0	235740386.4	54.. 66	558155.7	3468660.5
10..22	14764274.1	220976112.3	55.. 67	497307.4	2971353.1
11..23	13989216.5	206986895.8	56.. 68	441288.3	2530064.8
12..24	13255378.8	193731517.0	57.. 69	389817.8	2140247.0
13..25	12556001.4	181175515.6	58.. 70	342627.7	1797619.3
14..26	11889598.2	169285917.4	59.. 71	299464.4	1498154.9
15..27	11254739.6	158031177.8	60.. 72	259087.0	1239067.91
16..28	10650054.8	147381123.0	61.. 73	224265.83	1014802.08
17..29	10068550.6	137312572.4	62.. 74	191782.86	823019.22
18..30	9506128.2	127806444.2	63.. 75	162521.86	660497.36
19..31	8962788.0	118843656.2	64.. 76	136173.48	524323.88
20..32	8440124.6	110403531.6	65.. 77	113124.75	411199.13
21..33	7936251.7	102467279.9	66.. 78	93150.39	318048.74
22..34	7454037.1	95013242.8	67.. 79	76086.61	241962.13
23..35	6997179.2	88016063.6	68.. 80	61352.76	180609.37
24..36	6564492.6	81451571.0	69.. 81	48600.93	132008.44
25..37	6154841.8	75296729.2	70.. 82	37760.21	94248.23
26..38	5767146.0	69529583.2	71.. 83	28632.58	65615.65
27..39	5400364.7	64129218.5	72.. 84	20945.17	44670.489
28..40	5053505.2	59075713.3	73.. 85	14957.544	29712.945
29..41	4724290.7	54351422.6	74.. 86	10407.853	19305.092
30..42	4411994.1	49939428.5	75.. 87	7056.799	12248.2937
31..43	4115913.0	45823515.5	76.. 88	4630.4174	7617.8763
32..44	3836522.0	41986993.5	77.. 89	3014.2719	4603.6044
33..45	3573009.5	38413984.0	78.. 90	1936.4401	2667.1643
34..46	3324596.8	35089387.2	79.. 91	1232.6301	1434.5342
35..47	3090539.1	31998848.1	80.. 92	741.9237	692.61053
36..48	2870127.6	29128720.5	81.. 93	415.7038	276.90673
37..49	2662682.0	26466038.5	82.. 94	193.47261	83.43412
38..50	2466691.6	23999346.9	83.. 95	69.73029	13.70383
39..51	2280840.5	21718506.4			
40..52	2105553.3	19612953.1			
41..53	1940565.1	17672388.0			
42..54	1785414.9	15886973.1			
43..55	1639658.8	14247314.3			
44..56	1503323.3	12743991.0			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 13	43814418.	409110276.4	42 & 55	1677230.3	14677223.2
1..14	31298275.1	377812001.3	43.. 56	1538578.8	13138544.4
2..15	25350793.1	352461208.2	44.. 57	140-953.1	11729691.3
3..16	22704658.8	329756549.4	45.. 58	1287876.8	10441814.5
4..17	20747659.6	309008889.8	46.. 59	1174894.5	9266920.0
5..18	19314849.1	289694040.7	47.. 60	1069572.2	8197347.8
6..19	17982221.6	271711819.1	48.. 61	971496.9	7225850.9
7..20	16835674.2	254876144.9	49.. 62	880273.2	6345577.7
8..21	15816795.9	239059349.0	50.. 63	795692.4	5549885.3
9..22	14920372.1	224138976.9	51.. 64	716705.6	4833179.7
10..23	14118585.0	210020391.9	52.. 65	643721.5	4189458.2
11..24	13374303.8	196646088.1	53.. 66	576246.0	3613212.3
12..25	12669671.5	183976416.6	54.. 67	513965.7	3099246.5
13..26	11998218.8	171978197.8	55.. 68	456582.4	2642664.1
14..27	11358568.2	160619689.6	56.. 69	403813.0	2238851.1
15 .28	10749162.0	149870527.6	57.. 70	355386.7	1883464.4
16..29	10168957.5	139701670.1	58.. 71	311047.5	1572416.9
17..30	9610908.7	130090761.4	59.. 72	270551.9	1301865.05
18..31	9071396.4	121019365.0	60.. 73	233667.56	1068197.49
19..32	8550313.2	112469051.8	61.. 74	200174.65	868022.84
20..33	8049178.6	104419873.2	62.. 75	169863.90	698158.94
21..34	7566184.1	96853689.1	63.. 76	142616.26	555542.68
22..35	7104040.7	89749628.4	64.. 77	118670.09	436872.59
23..36	6666320.2	83083308.2	65.. 78	97951.96	338920.63
24..37	6251419.4	76831488.8	66.. 79	80221.76	258698.67
25..38	5859469.6	70972019.2	67.. 80	64878.77	193820.10
26..39	5488223.0	65483796.2	68.. 81	51564.40	142255.70
27..40	5137060.2	60346716.0	69.. 82	40212.18	102043.52
28..41	4803735.0	55542981.0	70.. 83	30620.95	71422.57
29..42	4487455.8	51055525.2	71.. 84	22508.24	48914.33
30..43	4187535.5	46867989.7	72.. 85	16163.80	32750.538
31..44	3904465.2	42963524.5	73.. 86	11320.823	21429.715
32..45	3637426.7	39326097.8	74.. 87	7735.337	13694.3786
33..46	3385635.9	35940461.9	75.. 88	5123.0150	8571.3635
34..47	3148342.1	32792119.8	76.. 89	3358.1222	5213.2414
35..48	2924831.4	29867288.4	77.. 90	2171.2577	3041.9837
36..49	2714118.1	27152870.3	78.. 91	1389.5942	1652.3895
37..50	2515169.3	24637301.0	79.. 92	844.7490	807.6405
38..51	2326949.1	22310351.9	80.. 93	450.2096	327.43092
39..52	2148996.7	20161355.2	81.. 94	227.02277	100.40815
40..53	1982004.5	18179350.7	82.. 95	83.48333	16.92482
41..54	1824897.2	16354453.5			

Difference of Age Fourteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 14	42153168.	390530796.2	5 & 19	18527766.3	275758795.5
1..15	30109070.5	360421725.7	6.. 20	17233479.1	258525316.4
2..16	24385493.3	336036232.4	7.. 21	16115995.9	242409320.5
3..17	21825920.0	314210312.4	8.. 22	15128502.9	227280617.6
4..18	19923750.6	294286561.8	9.. 23	14267356.5	213012961.1

TABLE XXXIII.   673

paratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fourteen Years—continued.

.	D.	N.	Ages.	D.	N.
24	13397985.7	199514975.4	46 & ▓	1096553.7	8470232.4
25	12783341.6	186731633.8	47.. 61	996638.4	7473594.0
26	12106839.2	174624794.0	48.. 62	903659.3	6569934.7
27	11462476.8	163162517.8	49.. 63	817694.5	5752210.2
28	10848269.1	152314248.7	50.. 64	737618.2	5014622.0
29	10263486.8	142050761.9	51.. 65	663315.1	4351306.9
30	9706656.5	132344105.4	52.. 66	594336.4	3756970.5
31	9171385.3	123172720.1	53.. 67	530623.9	3226346.6
32	8653923.6	114518796.5	54.. 68	471376.4	2754470.2
33	8154263.3	106364533.2	55.. 69	417908.2	2336662.0
34	7673845.2	98690688.0	56.. 70	368145.7	1968516.3
35	7210942.2	91479745.8	57.. 71	322630.5	1645885.8
36	6768147.9	84711597.9	58.. 72	291016.6	1364869.25
37	6348796.9	78362801.0	59.. 73	243069.30	1121799.95
38	5951793.1	72411007.9	60.. 74	208566.42	913233.53
39	5576081.5	66834926.4	61.. 75	177296.57	735936.96
40	5220655.3	61614271.1	62.. 76	149059.04	586877.92
41	4883179.4	56731091.7	63.. 77	124284.73	462593.19
42	4562917.5	52168174.2	64.. 78	102753.53	▓▓▓▓▓
43	4259158.2	47909016.0	65.. 79	84356.91	275482.75
44	3972408.2	43936697.8	66.. 80	68404.80	207077.95
45	3701844.0	40234763.8	67.. 81	54527.87	152550.08
46	3446675.1	36788088.7	68.. 82	42664.14	109885.94
47	3206145.3	33381943.4	69.. 83	32609.33	77276.61
48	2979535.2	30602409.2	70.. 84	24071.31	53205.30
49	2766154.1	27836254.1	71.. 85	17370.06	35835.24
50	2564446.9	25271807.2	72.. 86	12233.79	23601.456
51	2373057.7	22898749.5	73.. 87	8413.876	15187.5800
52	2192440.0	20706309.5	74.. 88	5615.6126	9571.9674
53	2022598.7	18683410.8	75.. 89	3715.3692	5856.5982
54	1863966.7	16819544.1	76.. 90	2418.9418	3437.6564
55	1714320.1	15105234.0	77.. 91	1538.0998	1879.5566
56	1573834.1	13531389.9	78.. 92	952.3200	927.2366
57	1441995.3	12089394.6	79.. 93	546.7631	380.47359
58	1318804.9	10770589.7	80.. 94	262.25044	118.22315
59	1203803.6	9566786.1	81.. 95	97.96021	20.26294

Difference of Age Fifteen Years.

D.	N.	Ages.	D.	N.
40551522.	372596514.3	10 & 25	12901558.5	189444253.4
28962586.5	343633927.8	11.. 26	12215459.7	177228793.7
23441701.0	320192226.8	12.. 27	11566045.4	165662748.3
20959192.2	299233034.6	13.. 28	10947376.4	154715371.9
19111855.0	280121179.6	14.. 29	10359116.0	144357255.9
17756308.5	262364871.1	15.. 30	9796984.6	134560271.3
16496795.7	245868075.4	16.. 31	9262754.3	125297517.0
15414682.7	230453392.7	17.. 32	8749310.8	116548206.2
14466885.0	215986507.7	18.. 33	8253074.3	108295131.9
13640695.8	202345811.9	19.. 34	7774029.8	100521102.1

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fifteen Years—continued.

Ages.	D.	N.	Ages.	D.	N.
20 & 35	7313548.5	93207553.6	51 & 66	612426.9	3900900.1
21..36	6869975.6	86337578.0	52.. 67	547282.0	3353618.1
22..37	6445774.5	79891803.5	53.. 68	487170.3	2866447.8
23..38	6044116.7	73847686.8	54.. 69	431803.5	2434644.3
24..39	5663940.0	68183746.8	55.. 70	380904.8	2053739.5
25..40	5304230.3	62879516.5	56.. 71	334213.5	1719526.0
26..41	4962623.7	57916892.8	57.. 72	291481.2	1428044.88
27..42	4638379.2	53278513.6	58.. 73	252471.04	1175573.84
28..43	4330780.7	48947732.9	59.. 74	216958.21	958615.63
29..44	4040351.5	44907331.4	60.. 75	184729.23	773886.38
30..45	3766261.2	41141120.2	61.. 76	155581.37	618305.01
31..46	3507714.1	37633406.1	62.. 77	129899.37	488405.64
32..47	3263948.3	34369457.8	63.. 78	107615.11	380790.53
33..48	3034239.0	31335218.8	64.. 79	88492.05	292298.48
34..49	2817890.2	28517328.6	65.. 80	71930.83	220367.65
35..50	2613324.6	25904004.0	66.. 81	57491.35	162876.30
36..51	2419166.3	23484837.7	67.. 82	45116.10	117760.20
37..52	2235883.3	21248954.4	68.. 83	34597.69	83162.51
38..53	2063792.8	19185161.6	69.. 84	25634.38	57523.13
39..54	1902323.3	17282838.3	70.. 85	18576.30	38951.83
40..55	1750928.2	15531910.1	71.. 86	13146.76	25805.07
41..56	1608637.4	13923272.7	72.. 87	9092.41	16712.6643
42..57	1475037.5	12448235.2	73.. 88	6108.2102	10604.4541
43..58	1349732.9	11098502.3	74.. 89	4072.6163	6531.8378
44..59	1232712.7	9865789.6	75.. 90	2676.2760	3855.5618
45..60	1123535.1	8742254.5	76.. 91	1735.8386	2119.7232
46..61	1021780.1	7720474.4	77.. 92	1067.8007	1051.9225
47..62	927045.2	6793429.2	78.. 93	616.3884	435.53413
48..63	839418.0	5954011.2	79.. 94	298.59646	136.93767
49..64	758014.4	5195996.8	80.. 95	113.16093	23.77674
50..65	682669.8	4513327.0			

Difference of Age Sixteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 16	39007414.0	355289939.6	15 & 31	9348951.5	127396897.8
1..17	27841646.9	327448292.7	16.. 32	8836475.0	118560422.8
2..18	22510809.1	304937483.6	17.. 33	8344043.4	110216379.4
3..19	20105102.2	284832381.4	18.. 34	7868233.4	102348146.0
4..20	18316077.0	266516304.4	19.. 35	7409029.2	94939116.8
5..21	16997275.6	249519028.8	20.. 36	6967730.3	87971386.5
6..22	15778911.4	233740117.4	21.. 37	6542752.0	81428634.5
7..23	14740549.2	218999568.2	22.. 38	6146440.3	75282194.2
8..24	13830975.8	205168592.4	23.. 39	5751798.4	69530395.8
9..25	13037962.8	192130629.6	24.. 40	5387805.4	64142590.4
10..26	12328424.9	179802204.7	25.. 41	5042068.1	59100522.3
11..27	11669813.9	168132390.8	26.. 42	4713340.9	54386681.4
12..28	11046483.5	157085907.3	27.. 43	4402403.4	49984278.0
13..29	10452745.3	146633162.0	28.. 44	4108294.5	45875983.5
14..30	9887312.7	136745849.3	29.. 45	3830678.4	42045305.1

TABLE XXXIII. 873

reparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Sixteen Years—*continued.*

L	D.	N.	Ages.	D.	N.
46	3568753.2	38476551.9	55 & 71	345796.5	1793308.2
47	3321751.5	35154800.4	56 .. 72	301946.0	1491362.24
48	3085942.9	32065857.5	57 .. 73	261872.77	1229489.47
49	2869626.2	29196231.3	58 .. 74	225350.00	1004139.47
50	2662202.2	26534029.1	59 .. 75	192161.93	811977.54
51	2465275.0	24068754.1	60 .. 76	162103.70	649873.84
52	2279326.7	21789427.4	61 .. 77	135583.35	514290.49
53	2104687.0	19684740.4	62 .. 78	112476.69	401813.80
54	1940779.9	17743960.5	63 .. 79	92678.88	309134.92
55	1787054.7	15956905.8	64 .. 80	75456.84	233678.08
56	1642988.7	14313917.1	65 .. 81	60454.81	173223.27
57	1507656.1	12806261.0	66 .. 82	47568.06	125655.21
58	1380660.9	11425600.1	67 .. 83	36586.07	89069.14
59	1261621.8	10163978.3	68 .. 84	27197.46	61871.68
60	1150516.6	9013461.7	69 .. 85	19782.56	42089.12
61	1046921.6	7966540.1	70 .. 86	14059.72	28029.40
62	950431.3	7016108.8	71 .. 87	9770.95	18258.456
63	861141.4	6154967.4	72 .. 88	6600.808	11657.6486
64	778152.4	5376815.0	73 .. 89	4429.8633	7227.7853
65	701546.6	4675268.4	74 .. 90	2933.6103	4294.1750
66	630296.7	4044971.7	75 .. 91	1920.5023	2373.6727
67	563940.2	3481031.5	76 .. 92	1189.6091	1184.0636
68	502464.3	2978567.2	77 .. 93	691.1332	492.93042
69	445798.6	2532768.6	78 .. 94	336.61998	156.31044
70	393663.9	2139104.7	79 .. 95	128.84421	27.46623

Difference of Age Seventeen Years.

	D.	N.	Ages.	D.	N.
7	37497709.	338569485.5	20 & 37	6635850.5	82943526.4
8	26736028.9	311833456.6	21 .. 38	622?763.9	76714762.5
9	21593490.5	290239966.1	22 .. 39	5839656.7	70875105.8
0	19267967.4	270971998.7	23 .. 40	5471380.4	65403725.4
1	17533115.4	253438883.3	24 .. 41	5121512.4	60282213.0
2	16257612.1	237181271.2	25 .. 42	4789302.6	55492910.4
3	15088849.1	222092422.1	26 .. 43	4474025.9	51018884.5
4	14092610.7	207999811.4	27 .. 44	4176237.7	46842646.8
5	13219834.9	194779976.5	28 .. 45	3895095.7	42947551.1
6	12458769.6	182321206.9	29 .. 46	3629792.3	39317758.8
7	11777733.3	170543473.6	30 .. 47	3379554.5	35938204.3
8	11145590.7	159397882.9	31 .. 48	3143646.7	32794557.6
9	10547374.5	148850508.4	32 .. 49	2921362.3	29873195.3
0	9977640.8	138872867.6	33 .. 50	2711079.9	27162115.4
1	9435148.7	129437718.9	34 .. 51	2511383.6	24650731.8
2	8918705.3	120519013.6	35 .. 52	2322770.0	22327961.8
3	8427170.1	112091843.5	36 .. 53	2145581.2	20182380.6
4	7954960.4	104136883.1	37 .. 54	1979236.6	18203144.0
5	7498809.9	96638073.2	38 .. 55	1823181.0	16379963.0
6	7058696.3	89579376.9	39 .. 56	1676888.1	14703074.9

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Seventeen Years—*continued.*

Ages.	D.	N.	Ages.	D.	N
40 & 57	1539851.0	13163223.9	60 & 77	141267.31	540391.93
41..58	1411192.6	11752031.3	61.. 78	117398.29	422993.64
42..59	1290530.8	10461500.5	62.. 79	96865.70	326127.94
43..60	1177498.0	9284002.5	63.. 80	79026.94	247101.00
44..61	1072063.2	8211939.3	64.. 81	63418.28	183682.72
45..62	973317.3	7238122.0	65.. 82	50020.02	133662.70
46..63	882864.9	6355257.1	66.. 83	38574.45	95088.25
47..64	798290.3	5556966.8	67.. 84	28760.53	66327.72
48..65	720184.5	4836782.3	68.. 85	20988.81	45338.91
49..66	647725.3	4189057.0	69.. 86	15072.70	30266.21
50..67	580395.2	3508661.8	70.. 87	10449.49	19816.726
51..68	517758.4	3090903.4	71.. 88	7093.406	12723.320
52..69	459793.9	2631109.5	72.. 89	4787.110	7936.2108
53..70	406423.0	2224686.5	73.. 90	3190.9445	4745.2663
54..71	357379.7	1867306.8	74.. 91	2105.1660	2640.1003
55..72	312410.7	1554896.15	75.. 92	1316.1632	1323.9371
56..73	271274.51	1283621.64	76.. 93	769.9736	553.96354
57..74	233741.77	1049879.87	77.. 94	377.43935	176.52419
58..75	199594.60	850285.27	78.. 95	145.25134	31.27265
59..76	168626.03	681659.24			

Difference of Age Eighteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 &18	36008640.	322463922..1	25 & 43	4545648.6	52051482.0
1..19	25646532.1	296817390.0	26.. 44	4244180.7	47807301.3
2..20	20694382.3	276123007.7	27.. 45	3959512.9	43847788.4
3..21	18444315.2	257678692.5	28.. 46	3690851.5	40156956.9
4..22	16770134.1	240908558.4	29.. 47	3437357.7	36719599.3
5..23	15546614.6	225361943.8	30.. 48	3198350.5	33521248.7
6..24	14425600.6	210936343.2	31.. 49	2973098.3	30548150.4
7..25	13469909.2	197466434.0	32.. 50	2759957.5	27788192.9
8..26	12632562.4	184833871.6	33.. 51	2557492.3	25230700.6
9..27	11902255.6	172931616.0	34.. 52	2366213.3	22864487.3
10..28	11248662.1	161682953.9	35.. 53	2186475.4	20678011.9
11..29	10642003.7	151040950.2	36.. 54	2017693.3	18660318.6
12..30	10067968.9	140972981.3	37.. 55	1859307.5	16801011.1
13..31	9521346.0	131451635.3	38.. 56	1710787.5	15090223.6
14..32	9000935.7	122450699.6	39.. 57	1571622.4	13518601.2
15..33	8505591.6	113945108.0	40.. 58	1441327.7	12077273.5
16..34	8034210.9	105910897.1	41.. 59	1319069.3	10758204.2
17..35	7581464.9	98329432.2	42.. 60	1204479.5	9553724.7
18..36	7144231.5	91185200.7	43.. 61	1097204.8	8456519.9
19..37	6722483.8	84462716.9	44.. 62	997203.3	7459316.6
20..38	6317394.5	78145322.4	45.. 63	904588.4	6554728.2
21..39	5927515.2	72217807.2	46.. 64	818428.3	5736299.9
22..40	5554955.5	66662851.7	47.. 65	738822.2	4997477.7
23..41	5200956.8	61461894.9	48.. 66	664933.2	4332544.5
24..42	4864764.3	56597130.6	49.. 67	596443.9	3736100.6

TABLE XXXIII. 877

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Eighteen Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
50 & 68	532865.9	3203234.7	64 & 82	52471.98	141576.87
51.. 69	473789.0	2729445.7	65.. 83	40662.62	100914.03
52.. 70	419182.0	2310263.7	66.. 84	30323.60	70590.45
53.. 71	368962.8	1941300.9	67.. 85	22195.07	48195.38
54.. 72	322875.5	1618425.48	68.. 86	15685.67	32509.71
55.. 73	280676.24	1337749.24	69.. 87	11123.03	21381.686
56.. 74	242133.54	1095615.70	70.. 88	7586.003	13795.683
57.. 75	207027.28	868588.42	71.. 89	5144.357	8651.326
58.. 76	175148.36	713440.06	72.. 90	3448.278	5203.0480
59.. 77	146951.27	566488.79	73.. 91	2269.8296	2913.2184
60.. 78	122319.90	444168.89	74.. 92	1442.7174	1470.5010
61.. 79	101104.22	343064.67	75.. 93	851.8856	618.61544
62.. 80	82597.03	260467.64	76.. 94	420.49539	198.12005
63.. 81	66418.79	194048.85	77.. 95	162.86488	35.25517

Difference of Age Nineteen Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 19	34541283.	306962342.3	30 & 49	3024834.4	31221223.4
1.. ■	24578663.6	292383678.7	31.. 50	2808835.2	28412368.2
2.. 21	19809754.9	262573923.8	32.. 51	2603600.9	25868787.3
3.. 22	17641681.4	244932242.4	33.. 52	2409656.6	23309130.7
4.. 23	16036722.3	228895520.1	34.. 53	2227369.5	21171761.2
5.. 24	14863244.5	214032275.6	35.. 54	2056150.0	19115611.2
6.. 25	13788185.5	200244090.1	36.. 55	1895434.0	17220177.2
7.. 26	12871527.4	187372562.7	37.. 56	1744686.8	15475490.4
8.. 27	12068285.3	175304277.4	38.. 57	1603393.7	13872096.7
9.. 28	11367590.7	163936686.7	39.. 58	1471066.2	12401030.5
10.. 29	10740419.1	153196268.6	40.. 59	1347237.1	11053793.4
11.. ■	10158297.0	143037971.6	41.. 60	1231115.0	9822678.4
12.. 31	9607543.2	133430428.4	42.. 61	1122346.3	8700332.1
13.. 32	9083166.1	124347262.3	43.. 62	1020589.3	7679742.8
14.. 33	8584013.0	115763249.3	44.. 63	926311.9	6753430.9
15.. 34	8108975.6	107654273.7	45.. 64	835566.4	5914864.5
16.. 35	7656994.5	99997279.2	46.. 65	757460.0	5157404.5
17.. 36	7222978.3	92774300.9	47.. 66	682141.2	4475263.3
18.. 37	6803944.9	85970356.0	48.. 67	612289.6	3862973.7
19.. 38	6399870.2	79570485.8	49.. 68	547600.5	3315373.2
20.. 39	6011859.4	73558626.4	50.. 69	487613.6	2827759.6
21.. 40	5638530.5	67920095.9	51.. 70	431941.1	2395818.5
22.. 41	5280401.1	62639694.8	52.. 71	380545.7	2015272.8
23.. 42	4940226.0	57699468.8	53.. 72	333340.3	1681932.52
24.. ■	4617271.2	53082197.6	54.. 73	290077.99	1391854.53
25.. 44	4312124.0	48770073.6	55.. 74	250525.32	1141329.21
26.. 45	4023930.1	44746143.5	56.. 75	214459.96	926869.25
27.. 46	3751870.6	40994272.9	57.. 76	181670.68	745198.57
28.. 47	3495160.7	37499112.2	58.. 77	152635.24	592563.33
29.. 48	3253054.4	34246057.8	59.. ■	127241.51	465321.82

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives
(Northampton 3 per Cent.)

Difference of Age Nineteen Years—continued.

Ages.	D.	N.	Ages.	D.	N.
60 & 79	105342.75	359979.07	69 & 88	8078.601	14870.980
61 .. 80	86211.20	273767.87	70 .. 89	5501.604	9369.376
62 .. 81	69419.30	204348.57	71 .. 90	3705.613	5663.763
63 .. 82	54954.59	149393.98	72 .. 91	2474.492	3189.2719
64 .. 83	42551.20	106842.78	73 .. 92	1569.2715	1620.0004
65 .. 84	31886.67	74956.11	74 .. 93	933.7977	686.20278
66 .. 85	23401.33	51554.78	75 .. 94	465.22894	220.97384
67 .. 86	16798.64	34756.14	76 .. 95	181.44334	39.53080
68 .. 87	11806.56	22949.581			

Difference of Age Twenty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 20	33103055.	292058514.1	38 & 58	1500804.7	12723237.4
1 .. 21	23527994.0	268530520.1	39 .. 59	1375034.3	11348193.1
2 .. 22	18947701.8	249582818.3	40 .. 60	1257404.7	10090788.4
3 .. 23	16870154.3	232712664.0	41 .. 61	1147165.7	8943622.7
4 .. 24	15331809.0	217380855.0	42 .. 62	1043975.2	7899647.5
5 .. 25	14206491.6	203174363.4	43 .. 63	948035.4	6951612.1
6 .. 26	13175664.7	189998698.7	44 .. 64	858704.3	6092907.8
7 .. 27	12296576.2	177702122.5	45 .. 65	776097.8	5316810.0
8 .. 28	11526162.1	166175960.4	46 .. 66	699349.2	4617460.8
9 .. 29	10853973.2	155321987.2	47 .. 67	628135.1	3989074.7
10 .. 30	10252238.2	145069749.0	48 .. 68	562148.3	3427177.4
11 .. 31	9693740.5	135376008.5	49 .. 69	501096.8	2926080.6
12 .. 32	9165396.5	126210612.0	50 .. 70	444544.5	2481536.1
13 .. 33	8662434.5	117548177.5	51 .. 71	392128.9	2089407.2
14 .. 34	8183740.2	109364437.3	52 .. 72	343804.9	1745602.30
15 .. 35	7728248.9	101636188.4	53 .. 73	299479.72	1446122.07
16 .. 36	7294936.5	94341251.9	54 .. 74	258917.11	1187205.04
17 .. 37	6878940.9	87462311.0	55 .. 75	221892.65	965312.91
18 .. 38	6477422.1	80984888.9	56 .. 76	188193.00	777119.9
19 .. 39	6090346.2	74694542.7	57 .. 77	158319.20	618800.71
20 .. 40	5718762.6	69175780.1	58 .. 78	132163.12	486637.59
21 .. 41	5359845.5	63815934.6	59 .. 79	109581.27	377056.32
22 .. 42	5015687.7	58800246.9	60 .. 80	89825.38	287230.94
23 .. 43	4688893.9	54111353.0	61 .. 81	72456.87	214774.07
24 .. 44	4380067.0	49731286.0	62 .. 82	67437.21	157336.86
25 .. 45	4088347.4	45642938.6	63 .. 83	44564.41	112772.45
26 .. 46	3812909.7	41830028.9	64 .. 84	33449.74	79322.71
27 .. 47	3552963.9	38277065.0	65 .. 85	24607.57	54715.14
28 .. 48	3307759.2	34969306.8	66 .. 86	17711.61	37003.53
29 .. 49	3076570.4	31892736.4	67 .. 87	12485.10	24518.436
30 .. 50	2857712.8	29035023.6	68 .. 88	8571.198	15947.239
31 .. 51	2649709.5	26385314.1	69 .. 89	5858.851	10088.357
32 .. 52	2453100.0	23932214.1	70 .. 90	3962.947	6125.440
33 .. 53	2268263.7	21663950.4	71 .. 91	2659.157	3466.983
34 .. 54	2094606.6	19569343.8	72 .. 92	1695.825	1770.4580
35 .. 55	1931560.5	17637783.3	73 .. 93	1015.7098	754.74881
36 .. 56	1778586.2	15859197.1	74 .. 94	509.96349	244.78573
37 .. 57	1635165.0	14224032.1	75 .. 95	200.74604	44.03905

TABLE XXXIII. 879

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-One Years.

s.	D.	N.	Ages.	D.	N.
21	31687991.	277752183.5	38 & 59	1402831.4	11641052.7
22	22504135.8	255248047.7	39.. 60	1283348.4	10357704.3
23	18119058.2	237128989.5	40.. 61	1171662.6	9186041.7
24	16128606.4	221000383.1	41.. 62	1067061.5	8118960.2
25	14654351.9	206346031.2	42.. 63	969758.9	7149221.3
26	13575388.1	192770643.1	43.. 64	878842.3	6270379.0
27	12587128.2	180183514.9	44.. 65	794735.6	5475643.4
28	11744197.9	168439317.0	45.. 66	716557.2	4759086.2
29	11005380.0	157433937.0	46.. 67	643980.8	4115105.4
30	10360631.9	147073305·1	47.. 68	576696.3	3538409.1
31	9783385.6	137289919.5	48.. 69	514409.3	3023999.8
32	9247626.8	128042292.7	49.. 70	456836.8	2567163.0
33	8740855.9	119301436.8	50.. 71	403570.6	2163592.4
34	8258505.0	111042931.8	51.. 72	354269.8	1809322.64
35	7799503.3	103243428.5	52.. 73	308881.46	1500441.18
36	7362821.7	95880606.8	53.. 74	267308.90	1233132.28
37	6947471.7	88933135.1	54.. 75	229325.32	1003806.96
38	6548818.9	82384316.2	55.. 76	194715.33	809091.63
39	6164147.2	76220169.0	56.. 77	164003.17	645088.46
40	5793423.0	70426746.0	57.. 78	137084.72	508003.74
41	5436112.0	64990634.0	58.. 79	113819.80	394183.94
42	5091149.4	59899484.6	59.. 80	93439.55	300744.39
43	4760516.4	55138968.2	60.. 81	75494.42	225249.97
44	4448010.3	50690957.9	61.. 82	59950.46	165299.51
45	4152764.6	46538193.3	62.. 83	46577.65	118721.86
46	3873948.8	42664244.5	63.. 84	35032.35	83689.51
47	3610766.9	39053477.6	64.. 85	25813.83	57875.68
48	3362462.0	35691015.6	65.. 86	18624.57	39251.11
49	3128306.5	32562709.1	66.. 87	13163.65	26067.465
50	2906590.5	29656118.6	67.. 88	9063.796	17023.669
51	2695818.1	26960300.5	68.. 89	6216.097	10807.572
52	2496543.3	24463757.2	69.. 90	4220.281	6587.291
53	2309157.9	22154599.3	70.. 91	2843.820	3743.471
54	2133063.3	20021536.0	71.. 92	1822.380	1921.091
55	1967686.8	18053849.2	72.. 93	1097.622	823.46934
56	1812485.5	16241363.7	73.. 94	554.69605	268.77329
57	1666936.4	14574427.3	74.. 95	220.04854	48.72475
58	1530543.2	13043884.1			

Difference of Age Twenty-Two Years.

b.	D.	N.	Ages.	D.	N.
22	30309038.	264035133.4	8 & 30	10505156.8	149063852.4
23	21519957.8	242515175.6	9.. 31	9886822.2	139177030.2
24	17322613.2	225192562.4	10.. 32	9333146.4	129843883.8
25	15415941.7	209776620.7	11.. 33	8819277.4	121024606.4
26	14003352.9	195773267.8	12.. 34	8333269.6	112691336.8
27	12968996.4	182804271.4	13.. 35	7870757.6	104820579.2
28	12021697.9	170782573.5	14.. 36	7430706.8	97389872.4
29	11213564.3	159569009.2	15.. 37	7012123.4	90377749.0

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Two Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
16 & 38	6614060.9	83763668.1	45 & 67	659826.2	4240359.0
17.. 39	6232091.1	77531597.0	46.. 68	591244.2	3649114.8
18.. 40	5863626.0	71667971.0	47.. 69	527721.8	3121393.0
19.. 41	5507082.3	66160888.7	48.. 70	468973.6	2652419.4
20.. 42	5163592.6	60997293.1	49.. 71	414729.9	2237689.5
21.. 43	4832139.1	56165157.0	50.. 72	364606.8	1873682.74
22.. 44	4515953.3	51649203.7	51.. 73	318283.19	1554799.55
23.. 45	4217181.9	47432021.8	52.. 74	275700.66	1279098.69
24.. 46	3934987.9	43497033.9	53.. 75	236757.99	1042340.90
25.. 47	3668570.1	39828463.8	54.. 76	201237.67	841103.23
26.. 48	3417165 8	36411293.0	55.. 77	169687.13	671416.10
27.. 49	3180042.5	33231255.5	56.. 78	142006.31	529409.79
28.. 50	2955468.1	30275787.4	57.. 79	118058.32	411351.47
29.. 51	2741926.8	27533360.6	58.. 80	97053.72	314297.75
30.. 52	2539986.6	24993874.0	59.. 81	78531.99	235765.76
31.. 53	2350052.1	22643821.9	60.. 82	62463.72	173302.04
32.. 54	2171520.0	20472301.9	61.. 83	48615.72	124686.32
33.. 55	2003813.3	18468188.6	62.. 84	36614.96	88071.36
34.. 56	1846384.9	16622103.7	63.. 85	27035.15	61036.21
35.. 57	1698707.8	14923395.9	64.. 86	19537.51	41498.67
36.. 58	1560281.8	13363114.1	65.. 87	13842.18	27656.495
37.. 59	1430628.7	11932485.4	66.. 88	9556.394	18100.101
38.. 60	1309292.1	10623193.3	67.. 89	6573.345	11526.756
39.. 61	1195837.3	9427356.0	68.. 90	4477.614	7049.112
40.. 62	1089347.9	8337508.1	69.. 91	3028.484	4020.658
41.. 63	991203.9	7346304.2	70.. 92	1948.934	2071.724
42.. 64	898980.2	6447324.0	71.. 93	1179.534	892.1913
43.. 65	813373.6	5633950.4	72.. 94	599.4295	292.76067
44.. 66	733765.2	4900185.2	73.. 95	239.35105	53.40962

Difference of Age Twenty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 23	28983527.	250885984.5	15 & 38	6675609.9	85118181.3
1.. 24	20574422.4	230311562.1	16.. 39	6294177.7	78824003.6
2.. 25	16557189.7	213754372.4	17.. 40	5928257.4	72895746.2
3.. 26	14731110.1	199023252.3	18.. 41	5573815.6	67321930.6
4.. 27	13377844.6	185645417.7	19.. 42	5231005.0	62090925.6
5.. 28	12386412.2	173259005.5	20.. 43	4900896.7	57190028.9
6.. 29	11478526.1	161780479.4	21.. 44	4583896.5	52606132.4
7.. 30	10703878.6	151076600.8	22.. 45	4281599.1	48324533.3
8.. 31	10024737.8	141051863.0	23.. 46	3996027.0	44328506.3
9.. 32	9431822.8	131620010.2	24.. 47	3726373.1	40602133.2
10.. 33	8900835.6	122719204.6	25.. 48	3471869.7	37130263.5
11.. 34	8408034.3	114311170.3	26.. 49	3231778.6	33898484.9
12.. 35	7942012.0	106369158.3	27.. 50	3004345.7	30894139.2
13.. 36	7498592.0	98870566.3	28.. 51	2788035.4	28106103.8
14.. 37	7076775.1	91793791.2	29.. 52	2583430.0	25522673.8

TABLE XXXIII. 361

...tary Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Three Years—continued.

	D.	N.	Ages.	D.	N.
3	2390946.2	23131727.6	52 & 75	244190.68	1080905.84
4	2209976.7	20921750.9	53.. 76	207760.00	873145.84
5	2039939.8	18831811.1	54.. 77	175371.10	697774.74
6	1880284.2	17001526.9	55.. 78	146927.93	550846.82
7	1730479.1	15271047.8	56.. 79	122296.82	428550.00
8	1590020.3	13681027.5	57.. 80	100667.89	327882.11
9	1458425.9	12222601.6	58.. 81	81569.55	246312.56
0	1335235.8	10887365.8	59.. 82	64976.98	181335.58
1	1220011.8	9667354.0	60.. 83	50653.81	130681.77
2	1112334.4	8555019.6	61.. 84	3c217.11	92464.66
3	1012370.4	7542649.2	62.. 85	28256.49	64208.17
4	918860.1	6623769.1	63.. 86	20461.93	43746.24
5	832011.4	5791777.7	64.. 87	14520.72	29225.524
6	750973.1	5040804.6	65.. 88	10048.991	19176.533
7	675671.9	4365132.7	66.. 89	6930.592	12245.941
8	605792.3	3759340.4	67.. 90	4734.949	7510.992
	541034.3	3218306.1	68.. 91	3213.147	4297.845
	481110.2	2737195.9	69.. 92	2075.488	2222.357
1	425748.0	2311447.9	70.. 93	1261.446	960.9116
	374688.7	1936759.25	71.. 94	644.1631	316.7485
	327570.28	1609188.97	72.. 95	258.6536	58.09490
	284092.45	1325096.52			

Difference of Age Twenty-Four Years.

	D.	N.	Ages.	D.	N.
	27709521.	████████	22 & 46	4057066.1	████████
	19664930.7	218617594.0	23.. 47	3784176.3	41374591.0
	15621659.7	202795934.3	24.. 48	3526573.5	37846017.5
	14073094.2	188722840.1	25.. 49	3283514.6	34564502.9
	12776894.3	175945945.8	26.. 50	3053223.3	31511279.6
	11826761.7	164119184.1	27.. 51	2834144.1	28677135.5
	10956797.3	153162386.8	28.. 52	2626873.3	█████████
	10214371.7	142948015.1	29.. 53	2431840.4	23618421.8
	9563391.4	133384623.7	30.. 54	2248433.3	21369988.5
	8994941.4	124389682.3	31.. 55	2076066.3	19293922.2
	8485789.5	115903892.8	32.. 56	1914183.6	17379738.6
	8013066.3	107890626.5	33.. 57	1762250.4	15617488.2
	7566477.1	100324149.4	34.. 58	1619758.6	13997729.4
	7141426.8	93182722.6	35.. 59	1486223.1	12511506.3
	6737159.0	86445563.6	36.. 60	1361179.5	11150326.8
	6352750.0	80092813.6	37.. 61	1244186.5	████████
	5987317.1	74105496.5	38.. 62	1134820.9	8771319.4
	5635252.6	68470243.9	39.. 63	1033256.4	7738061.0
	████████	63175851.0	40.. 64	████████	6799579.2
	████████	58210971.5	41.. 65	850410.2	5949169.0
	4649121.8	53561849.7	42.. 66	768181.0	5180988.0
	████████	49215833.4	43.. 67	691517.5	4469470.5

3 L.

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Four Years—continued.

Ages.	D.	N.	Ages.	D.	N.
44 & 68	620340.2	3869130.3	58 & 82	67490.24	189392.65
45.. 69	554346.9	3314783.4	59.. 83	52691.90	136700.75
46.. 70	493246.9	2821536.5	60 . 84	39819.25	96681.50
47.. 71	436765.9	2384770.6	61.. 85	29492.90	67388.60
48.. 72	384043.0	2000127.60	62.. 86	21386.32	46002.98
49.. 73	336628.05	1661499.55	63.. 87	15207.73	30784.554
50.. 74	292381.69	1371117.66	64.. 88	10541.589	20252.965
51.. 75	251623.35	1119494.31	65.. 89	7267.839	12965.126
52.. 76	214282.32	905211.99	66.. 90	4992.284	7972.843
53.. 77	181055.06	724156.93	67.. 91	3397.810	4575.032
54.. 78	151849.54	572307.39	68.. 92	2202.042	2372.390
55.. 79	126535.35	445772.04	69.. 93	1343.358	1029.637
56.. 80	104282.06	341489.98	70.. 94	688.8967	340.7360
57.. 81	84607.09	256882.89	71.. 95	277.9561	62.7799

Difference of Age Twenty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 25	26485137.	226205696.3	30 & 55	2112192.6	19704922.8
1.. 26	18791343.9	207414352.4	31.. 56	1948092.9	17756839.9
2.. 27	15114930.6	192299421.8	32.. 57	1794021.8	15962818.1
3.. 28	13440912.3	178858509.5	33.. 58	1649497.4	14313320.7
4.. 29	12199601.0	166658906.5	34.. 59	1514020.3	12799300.5
5.. 30	11289204.6	155369703.9	35.. 60	1387123.2	11412177.3
6.. 31	10455723.9	144913980.0	36.. 61	1268361.0	10143816.3
7.. 32	9744298.2	135169681.8	37.. 62	1157307.5	8986508.6
8.. 33	9120415.8	126049266.0	38..	1054146.3	7932362.5
9.. 34	8573507.1	117473758.9	39.. 64	957845.2	6974517.3
10.. 35	8087370.9	109386388.0	40.. 65	868570.1	6105947.2
11.. 36	7634362.2	101752025.8	41.. 66	785168.4	5320778.8
12.. 37	7206078.5	94545947.3	42.. 67	707363.0	4613415.8
13.. 38	6798708.0	87747239.3	43.. 68	634588.2	3978527.6
14.. 39	6411322.3	81335917.0	44.. 69	567659.4	3410868.2
15.. 40	6043033.8	75292883.2	45.. 70	505383.5	2905484.7
16.. 41	5691393.3	69601489.9	46.. 71	447784.0	2457700.7
17.. 42	5352749.9	64248740.0	47.. 72	394597.2	2063103.57
18.. 43	5025042.6	59223697.4	48.. 73	345571.16	1717532.41
19.. 44	4709817.6	54513879.8	49.. 74	300466.65	1417065.76
20.. 45	4407856.9	50106022.9	50.. 75	258965.39	1158100.37
21.. 46	4118105.2	45987917.7	51.. 76	220804.65	937295.72
22.. 47	3841979.3	42145938.4	52.. 77	186739.01	750556.71
23.. 48	3581277.4	38564661.0	53.. 78	156771.15	593785.56
24.. 49	3335250.7	35229410.3	54.. 79	130773.68	463011.68
25.. 50	3102101.0	32127309.3	55.. 80	107896.23	355115.45
26.. 51	2880252.7	29247056.6	56.. 81	87644.66	267470.79
27.. 52	2670316.6	26576740.0	57.. 82	70003.50	197467.29
28.. 53	2472734.7	24104005.3	58.. 83	54729.98	142737.41
29.. 54	2286889.9	21817115.4	59.. 84	41421.41	102315.90

TABLE XXXIII 883

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Five Years—continued.

Ages.	D.	N.	Ages.	D.	N.
60 & 85	30720.30	70586.60	66 & 91	3582.475	4852.219
61.. 86	22322.11	48264.49	67.. 92	2328.596	2523.623
62.. 87	15894.75	32369.742	68.. 93	1425.270	1098.3538
63.. 88	11040.343	21329.389	69.. 94	7336.302	364.7236
64.. 89	7645.067	13681.312	70.. 95	297.2586	67.4650
65.. 90	5249.619	6434.694			

Difference of Age Twenty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 26	25308572.	214635558.7	35 & 61	1292535.7	10380479.9
1.. 27	17951963.5	196683595.2	36.. 62	1179794.0	9200685.9
2.. 28	14435948.1	182247647.1	37.. 63	1075034.3	8125651.6
3.. 29	12833616.8	169414030.3	38.. 64	977208.6	7148443.0
4.. 30	11645097.3	157768933.0	39.. 65	886491.2	6261951.8
5.. 31	10772929.8	146996003.2	40.. 66	801935.1	5460016.7
6.. 32	9974543.2	137021460.0	41.. 67	723005.5	4737011.2
7.. 33	9292947.0	127728517.0	42.. 68	649436.2	4087575.0
8.. 34	8695130.5	119033386.5	43.. 69	580971.9	3506603.1
9.. 35	8172876.2	110860510.3	44.. 70	517520.2	15.9821.5
10.. 36	7704962.7	103155547.6	45.. 71	455809.0	2530280.9
11.. 37	7270730.2	95884817.4	46.. 72	404551.6	2125729.35
12.. 38	6860257.1	89024560.3	47.. 73	354514.28	1771215.07
13.. 39	6469894.6	82554665.7	48.. 74	305442.08	1462765.99
14.. 40	6098750.6	76455915.2	49.. 75	266126.14	1196639.85
15.. 41	5744356.2	70711559.0	50.. 76	227247.43	969392.42
16.. 42	5406076.2	65305482.8	51.. 77	192423.99	776969.43
17.. 43	5080430.9	60225051.9	52.. 78	161692.75	615276.68
18.. 44	4766890.0	55458161.9	53.. 79	135019.40	480284.33
19.. 45	4465402.8	50992759.1	54.. 80	111510.41	368753.87
20.. 46	4176702.8	46816056.3	55.. 81	90682.21	278071.66
21.. 47	3900970.6	42916273.8	56.. 82	72516.76	205554.90
22.. 48	3635981.2	39280292.6	57.. 83	56768.06	148786.84
23.. 49	3386966.7	35903305.9	58.. 84	43023.56	105763.28
24.. 50	3150978.6	32742327.3	59.. 85	31965.79	73797.56
25.. 51	2926361.4	29815955.9	60.. 86	23257.90	50539.66
26.. 52	2713759.9	27102206.0	61.. 87	16590.27	33949.397
27.. 53	2513628.8	24588577.2	62.. 88	11539.099	23410.799
28.. 54	2325346.7	22263230.5	63.. 89	8006.799	14403.499
29.. 55	2148319.1	20114911.4	64.. 90	5506.953	8596.548
30.. 56	1981982.3	18132929.1	65.. 91	3767.139	5129.407
31.. 57	1825793.2	16307135.9	66.. 92	2455.151	2674.256
32.. 58	1679135.0	14627899.9	67.. 93	1507.182	1167.0749
33.. 59	1541817.4	13086082.5	68.. 94	778.3437	388.7118
34.. 60	1412066.9	11673015.6	69.. 95	316.5611	72.1501

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 27	24178079.	203553264.0	35 & 62	1202280.6	9413942.4
1.. 28	17145537.9	186407726.1	36.. 63	1095922.3	8318020.1
2.. 29	13783694.2	172624031.9	37.. 64	996572.0	7321448.1
3.. 30	12250295.6	160373736.3	38.. 65	904412.1	6417036.0
4.. 31	11112546.8	149261189.5	39.. 66	818481.2	5598554.8
5.. 32	10277151.0	138984038.5	40.. 67	738444.7	4860110.1
6.. 33	9512523.0	129471515.5	41.. 68	663797.6	4196312.5
7.. 34	8859612.9	120611902.6	42.. 69	594284.3	3602028.2
8.. 35	8286883.2	112325019.4	43.. 70	529657.0	3072371.2
9.. 36	7786425.0	104538594.4	44.. 71	469820.0	2602551.2
10.. 37	7337968.0	97200626.4	45.. 72	414505.8	2188045.40
11.. 38	6921806.1	90278820.3	46.. 73	363457.39	1824588.01
12.. 39	6528466.9	83750353.4	47.. 74	316431.50	1508156.51
13.. 40	6154467.3	77595886.1	48.. 75	273196.25	1234960.26
14.. 41	5797319.1	71798567.0	49.. 76	233531.14	1001429.12
15.. 42	5456384.0	66342183.0	50.. 77	198037.63	803391.49
16.. 43	5131044.2	61211138.8	51.. 78	166614.35	636777.14
17.. 44	4819432.7	56391706.1	52.. 79	139250.92	497526.22
18.. 45	4519513.4	51872192.7	53.. 80	115124.58	382401.64
19.. 46	4231231.1	47640961.6	54.. 81	93719.78	288681.86
20.. 47	3955273.4	43685688.2	55.. 82	75030.02	213651.84
21.. 48	3690685.0	39995003.2	56.. 83	58806.14	154845.70
22.. 49	3433722.8	36556280.4	57.. 84	44625.70	110220.00
23.. 50	3199856.3	33356424.1	58.. 85	33202.13	77017.87
24.. 51	2972469.9	30383954.2	59.. 86	24193.69	52824.18
25.. 52	2757203.3	27626750.9	60.. 87	17285.76	35538.423
26.. 53	2554522.9	25072228.0	61.. 88	12044.011	23494.412
27.. 54	2363803.4	22708424.6	62.. 89	8368.511	15125.901
28.. 55	2184445.6	20523979.0	63.. 90	5767.503	9358.398
29.. 56	2015881.7	18508097.3	64.. 91	3951.802	5406.596
30.. 57	1857564.5	16650532.8	65.. 92	2581.705	2824.891
31.. 58	1708974.4	14941558.4	66.. 93	1589.095	1235.7960
32.. 59	1569614.6	13371943.8	67.. 94	823.0973	412.6987
33.. 60	1439010.6	11932933.2	68.. 95	335.8636	76.8351
34.. 61	1316710.2	10616223.0			

Difference of Age Twenty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 28	23091967.	192940636.1	10 & 38	6985817.2	91511263.0
1.. 29	16370857.6	176569778.5	11.. 39	6587039.1	84924223.9
2.. 30	13157189.6	163412588.9	12.. 40	6210184.0	78714039.9
3.. 31	11690068.2	151722520.7	13.. 41	5850282.0	72863757.9
4.. 32	10601138.6	141121382.1	14.. 42	5506691.8	67357066.1
5.. 33	9301114.0	131320268.1	15.. 43	5178792.6	62178273.5
6.. 34	9068953.9	122251314.2	16.. 44	4867445.8	57310827.7
7.. 35	8443642.8	113807671.4	17.. 45	4569329.4	52741498.3
8.. 36	7895041.2	105912630.2	18.. 46	4282503.9	48458994.4
9.. 37	7415550.0	98497080.2	19.. 47	4006910.8	44452083.6

TABLE XXXIII. 885

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Eight Years—continued.

Ages.	D.	N.	Ages.	D.	N.
20 & 48	3743200.7	40708882.9	44 & 72	424460.1	2250090.06
21.. 49	3490458.8	37218424.1	45.. 73	372400.51	1877689.55
22.. 50	3248733.9	33969690.2	46.. 74	324413.93	1553275.62
23.. 51	3018578.6	30951111.6	47.. 75	280266.36	1273009.26
24.. 52	2800646.6	28150465.0	48.. 76	239735.31	1033273.95
25.. 53	2595417.1	25555047.9	49.. 77	203513.66	829760.29
26.. 54	2402260.0	23152787.9	50.. 78	171475.93	658284.36
27.. 55	2220572.0	20932215.9	51.. 79	143489.43	514794.93
28.. 56	2049781.0	18882434.9	52.. 80	118738.75	396056.18
29.. 57	1889335.8	16993099.1	53.. 81	96757.33	299298.85
30.. 58	1738712.9	15254386.2	54.. 82	77543.29	221755.56
31.. 59	1597411.9	13656974.3	55.. 83	60844.22	160911.34
32.. 60	1464954.3	12192020.0	56.. 84	46227.85	114683.49
33.. 61	1340884.9	10851135.1	57.. 85	34438.53	80244.96
34.. 62	1224767.1	9626368.0	58.. 86	25129.48	55115.48
35.. 63	1116810.3	8509557.7	59.. 87	17981.26	37134.222
36.. 64	1015935.6	7493622.1	60.. 88	12548.923	24585.299
37.. 65	922333.1	6571289.0	61.. 89	8734.689	15850.610
38.. 66	835027.3	5736261.7	62.. 90	6028.053	9822.557
39.. 67	753681.0	4982580.7	63.. 91	4138.774	5683.783
40.. 68	677972.6	4304608.1	64.. 92	2708.259	2975.524
41.. 69	607426.3	3697181.8	65.. 93	1671.007	1304.5172
42.. 70	541793.6	3155388.2	66.. 94	867.8309	436.6863
43.. 71	480838.1	2674550.1	67.. 95	355.1661	81.5202

Difference of Age Twenty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 29	22048611.	182780143.4	21 & 50	3297611.6	34582206.7
1.. 30	15626759.6	167153383.8	22.. 51	3064687.2	31517519.5
2.. 31	12955488.4	154597895.4	23.. 52	2844090.0	28673429.5
3.. 32	11152082.1	143445813.3	24.. 53	2636311.4	26037118.1
4.. 33	10110094.6	133335718.7	25.. 54	2440716.6	23596401.5
5.. 34	9344087.8	123991630.9	26.. 55	2256698.3	21339703.2
6.. 35	8643155.0	115348475.9	27.. 56	2083680.3	19256022.9
7.. 36	8044388.4	107304087.5	28.. 57	1921107.2	17334915.7
8.. 37	7518992.7	99785094.8	29.. 58	1768451.5	15566464.2
9.. 38	7059676.0	92725418.8	30.. 59	1625209.0	13941255.2
10.. 39	6647954.3	86077464.5	31.. 60	1490898.0	12450357.2
11.. 40	6265900.7	79811563.8	32.. 61	1365059.4	11085297.8
12.. 41	5903244.9	73908318.9	33.. 62	1247253.7	9838044.1
13.. 42	5556999.6	68351319.3	34.. 63	1137698.2	8700345.9
14.. 43	5226541.0	63124778.3	35.. 64	1035299.0	7665046.9
15.. 44	4912741.3	58212037.0	36.. 65	940254.1	6724792.8
16.. 45	4614850.9	53597186.1	37.. 66	851573.8	5873219.0
17.. 46	4329707.5	49267478.6	38.. 67	768917.0	5104302.0
18.. 47	4055465.5	45212013.1	39.. 68	691961:0	4412341.0
19.. 48	3792069.4	41419943.7	40.. 69	620397.5	3791943.5
20.. 49	3540125.4	37879818.3	41.. 70	553774.6	3238168.9

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Twenty-Nine Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
42 & 71	491856.1	2746312.8	55 & 84	47830.00	119151.62
43.. 72	434414.3	2311898.49	56.. 85	35674.95	83476.87
44.. 73	381343.63	1930554.86	57.. 86	26065.28	57411.59
45.. 74	332396.35	1598158.51	58.. 87	18676.77	38734.823
46.. 75	287336.47	1310822.04	59.. 88	13053.836	25680.987
47.. 76	245939.47	1064882.57	60.. 89	9100.867	16580.120
48.. 77	208920.35	855962.22	61.. 90	6291.822	10288.298
49.. 78	176217.48	679744.74	62.. 91	4325.746	6962.552
50.. 79	147676.26	532068.48	63.. 92	2836.395	3126.157
51.. 80	122352.91	409715.57	64.. 93	1752.919	1373.2384
52.. 81	99794.88	309920.69	65.. 94	912.5644	460.6740
53.. 82	80056.55	229864.14	66.. 95	374.4687	86.2053
54.. 83	62882.32	166981.82			

Difference of Age Thirty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 30	21046445.	173054875.4	33 & 63	1158586.2	8890461.9
1.. 31	14912120.8	158142764.6	34.. 64	1054662.4	7835799.5
2.. 32	11977675.0	146165079.6	35.. 65	958175.1	6877624.4
3.. 33	10635518.3	135529561.3	36.. 66	868119.6	6009504.8
4.. 34	9638660.5	125890900.8	37.. 67	784153.2	5225351.6
5.. 35	8905371.1	116985529.7	38.. 68	705949.5	4519402.1
6.. 36	8234466.8	108751062.9	39.. 69	633197.9	3886204.2
7.. 37	7661226.5	101089836.4	40.. 70	565600.1	3320604.1
8.. 38	7158154.5	93931681.9	41.. 71	502732.9	2817871.2
9.. 39	6718241.1	87213440.8	42.. 72	444368.5	2373502.78
10.. 40	6323846.1	80889594.7	43.. 73	390286.74	1983216.04
11.. 41	5956207.8	74933386.9	44.. 74	340378.77	1642837.27
12.. 42	5607307.4	69326079.5	45.. 75	294406.58	1348430.69
13.. 43	5274299.4	64051790.1	46.. 76	252143.64	1096287.05
14.. 44	4958036.7	59093753.4	47.. 77	214327.04	881960.01
15.. 45	4657795.7	54435957.7	48.. 78	180899.02	701060.99
16.. 46	4372841.8	50063115.9	49.. 79	151759.72	549301.27
17.. 47	4100166.6	45962949.3	50.. 80	125923.02	423378.25
18.. 48	3838020.7	42124928.6	51.. 81	102832.44	320545.81
19.. 49	3586343.0	38538585.6	52.. 82	82569.81	237976.00
20.. 50	3344534.1	35194051.5	53.. 83	64920.40	173055.60
21.. 51	3110795.9	32083255.6	54.. 84	49432.15	123623.45
22.. 52	2887533.4	29195722.2	55.. 85	36911.35	86712.10
23.. 53	2677205.4	26518516.8	56.. 86	27001.08	59711.02
24.. 54	2479173.4	24039343.4	57.. 87	19372.27	40338.756
25.. 55	2292824.8	21746518.6	58.. 88	13558.749	26780.007
26.. 56	2117579.7	19628938.9	59.. 89	9467.047	17312.960
27.. 57	1952878.5	17676060.4	60.. 90	6555.589	10757.371
28.. 58	1798190.1	15877870.3	61.. 91	4515.026	6242.345
29.. 59	1653006.2	14224864.1	62.. 92	2964.531	3277.814
30.. 60	1516841.7	12708022.4	63.. 93	1835.855	1441.9595
31.. 61	1389234.1	11318788.3	64.. 94	957.2980	484.6615
32.. 62	1269740.2	10049048.1	65.. 95	393.7711	90.8904

TABLE XXXIII 887

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 31	20083954.	163748521.3	33 & 64	1074025.8	8005953.3
1.. 32	14225853.2	149522668.1	34.. 65	976096.0	7029857.3
2.. 33	11422869.8	136699798.3	35.. 66	884665.7	6145191.6
3.. 34	10139583.8	127960214.5	36.. 67	799389.3	5345802.3
4.. 35	9166113.4	118774101.1	37.. 68	719937.8	4625864.5
5.. 36	8484284.1	110289817.0	38.. 69	645998.4	3979866.1
6.. 37	7842251.2	102447565.8	39.. 70	577270.1	3402596.0
7.. 38	7293562.4	95154003.4	40.. 71	513468.5	2889127.5
8.. 39	6811956.8	88342046.6	41.. 72	454195.2	2434932.29
9.. 40	6390706.1	81951340.5	42.. 73	399229.85	2035702.44
10.. 41	6011289.2	75940051.3	43.. 74	348361.20	1687341.24
11.. 42	5657615.2	70282436.1	44.. 75	301476.69	1385864.55
12.. 43	5322037.8	64960398.3	45.. 76	258347.80	1127516.75
13.. 44	5003332.1	59957066.2	46.. 77	219733.74	907783.01
14.. 45	4700740.5	55256325.7	47.. ▮	185580.54	722202.47
15.. 46	4413534.6	50842791.1	48.. 79	155791.49	566410.98
16.. 47	4141014.1	46701777.0	49.. 80	129404.96	437006.02
17.. 48	3880325.0	42821452.0	50.. 81	105832.96	331173.06
18.. 49	3629801.2	39191650.8	51.. 82	85083.06	246090.00
19.. 50	3388198.1	35803452.7	52.. 83	66958.47	179131.53
20.. 51	3155060.2	32648392.5	53.. 84	51034.30	128097.23
21.. 52	2930976.6	29717415.9	54.. 85	39147.77	89949.46
22.. 53	2716099.6	26999316.3	55.. 86	27936.94	62012.52
23.. 54	2517630.0	24481686.3	56.. 87	20067.70	41944.829
24.. 55	2328951.3	22152735.0	57.. 88	14063.662	27681.167
25.. 56	2151479.1	20001255.9	58.. 89	9833.225	18047.942
26.. 57	1984649.8	18016606.1	59.. 90	6819.357	11228.585
27.. 58	1827928.6	16188677.5	60.. 91	4704.307	6524.278
28.. 59	1680803.4	14507874.1	61.. ▮▮	3094.248	3430.030
29.. 60	1542785.4	12965088.7	62.. ▮▮	1918.791	1511.2397
30.. 61	1413408.6	11651680.1	63.. ▮▮	1002.5907	508.6490
31.. 62	1292226.8	10259453.3	64.. 95	413.0736	95.5754
32.. 63	1179474.2	9079979.1			

Difference of Age Thirty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 32	19159674.	154845356.4	12 & 44	5048637.5	60803022.0
1.. 33	13566912.6	141278443.8	13.. 45	4743685.4	56059336.6
2.. 34	10890221.1	130388222.7	14.. 46	4454227.3	51605109.3
3.. 35	9663517.7	120724705.0	15.. 47	4179549.5	47425559.8
4.. 36	8751751.6	111972953.4	16.. 48	3918982.3	43506577.5
5.. 37	8080169.5	103892783.9	17.. 49	3669810.5	39836767.0
6.. 38	7465899.8	96426884.1	18.. 50	3429255.4	36407511.6
7.. 39	6940815.7	89466068.4	19.. 51	3196250.5	33211261.1
8.. 40	6479852.8	83006215.6	20.. 52	2972682.2	30238578.9
9.. 41	6074844.6	76931371.0	21.. 53	2758993.8	27479585.1
10.. 42	5709935.3	71221435.7	22.. 54	2556086.6	24923498.5
11.. 43	5369786.2	65851649.5	23.. 55	2365077.8	22558420.7

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joi
(Northampton 3 per Cent.)

Difference of Age Thirty-Two Years—continued.

Ages.	D.	N.	Ages.	D.	
24 & 56	2185378.4	20373042.3	44 & 76	264551.96	1158
25 .. 57	2016421.1	18356621.2	45 .. 77	225140.44	933
26 .. 58	1857667.1	16498954.1	46 .. 78	190262.07	743
27 .. 59	1708600.6	14790353.5	47 .. 79	159823.25	583
28 .. 60	1568729.1	13221624.4	48 .. 80	132842.83	450
29 .. 61	1437583.3	11784041.1	49 .. 81	108759.39	341
30 .. 62	1314713.3	10469327.8	50 .. 82	87565.68	254
31 .. 63	1200362.2	9268965.6	51 .. 83	68996.55	185
32 .. 64	1093389.4	8175576.2	52 .. 84	52636.45	132
33 .. 65	994017.0	7181559.2	53 .. 85	39384.18	93
34 .. 66	901211.8	6280347.4	54 .. 86	28872.66	64
35 .. 67	814625.5	5465721.9	55 .. 87	20763.27	43
36 .. 68	733926.4	4731795.5	56 .. 88	14568.573	28
37 .. 69	656798.9	4072996.6	57 .. 89	10199.402	18
38 .. 70	586939.9	3484056.7	58 .. 90	7083.125	11
39 .. 71	524062.8	2959993.9	59 .. 91	4893.588	6
40 .. 72	463894.3	2496099.65	60 .. 92	3223.967	3
41 .. 73	408058.33	2088041.32	61 .. 93	2002.750	1
42 .. 74	356343.63	1731697.69	62 .. 94	1047.8833	
43 .. 75	308546.80	1423150.89	63 .. 95	432.6173	

Difference of Age Thirty-Three Years.

Ages.	D.	N.	Ages.	D.	
0 & 33	18272199.	146330207.5	23 & 56	2219277.8	2074
1 .. 34	12934287.1	133395920.4	24 .. 57	2048192.5	1869
2 .. 35	10378912.5	123017007.9	25 .. 58	1887405.7	1680
3 .. 36	9206582.0	113810425.9	26 .. 59	1736397.7	1507
4 .. 37	8334897.2	105475528.7	27 .. 60	1594672.8	1347
5 .. 38	7692400.2	97783128.5	28 .. 61	1461757.9	1201
6 .. 39	7104818.1	90678310.4	29 .. 62	1337199.8	1067
7 .. 40	6602429.6	84075880.8	30 .. 63	1221250.1	945
8 .. 41	6159585.3	77916295.5	31 .. 64	1112752.8	834
9 .. 42	5770304.7	72145990.8	32 .. 65	1011938.0	733
10 .. 43	5419444.5	66726546.3	33 .. 66	917757.9	641
11 .. 44	5093922.9	61632623.4	34 .. 67	829861.5	558
12 .. 45	4786630.2	56845993.2	35 .. 68	747914.7	483
13 .. 46	4494920.1	52351073.1	36 .. 69	671599.5	416
14 .. 47	4218084.9	48132988.2	37 .. 70	600609.0	356
15 .. 48	3955451.6	44177536.6	38 .. 71	534657.0	303
16 .. 49	3706370.6	40471166.0	39 .. 72	473465.8	255
17 .. 50	3467054.1	37004111.9	40 .. 73	416772.13	214
18 .. 51	3234981.9	33769130.0	41 .. 74	364223.71	177
19 .. 52	3011491.6	30757638.4	42 .. 75	315615.97	146
20 .. 53	2798252.3	27969386.1	43 .. 76	270756.18	118
21 .. 54	2594543.3	25364842.8	44 .. 77	230547.14	95
22 .. 55	2401204.1	22953638.7	45 .. 78	194943.59	76

TABLE XXXIII. 689

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirty-Three Years—*continued.*

Ages	D.	N.	Ages	D.	N.
46 & 79	163855.01	600212.78	55 & 88	15073.486	30086.634
47.. 80	136280.70	463932.08	56.. 89	10565.580	19521.054
48.. 81	111648.77	352283.31	57.. 90	7346.892	12174.162
49.. 82	89986.99	262296.32	58.. 91	5082.867	7091.295
50.. 83	71009.79	191286.53	59.. 92	3353.685	3737.610
51.. 84	54238.60	137047.93	60.. 93	2086.710	1650.9007
52.. 85	40620.58	96427.35	61.. 94	1093.7354	557.1653
53.. 86	29808.45	66618.90	62.. 95	452.1611	105.0042
54.. 87	21458.78	45160.120			

Difference of Age Thirty-Four Years.

Ages	D.	N.	Ages	D.	N.
0 & 34	17420167.	138168429.8	31 & 65	1029859.0	7483520.8
1.. 35	12327006.0	125861423.8	32.. 66	934304.1	6549316.7
2.. 36	9888148.7	115973275.1	33.. 67	845097.8	5704218.9
3.. 37	8721043.75	107205211.6	34.. 68	761903.2	4942315.7
4.. 38	7934903.5	99270308.1	35.. 69	684399.0	4257915.8
5.. 39	7320364.1	91949944.0	36.. 70	612279.7	3645636.1
6.. 40	6758436.3	85191507.7	37.. 71	545251.2	3100384.9
7.. 41	6276103.7	78915404.0	38.. 72	483037.1	2617347.86
8.. 42	5850797.2	73064606.8	39.. 73	425371.27	2191976.59
9.. 43	5476742.5	67587864.3	40.. 74	372001.46	1819975.13
10.. 44	5141030.1	62446834.2	41.. 75	322596.37	1497378.76
11.. 45	4829575.0	57617259.2	42.. 76	276960.29	1220418.47
12.. 46	4533612.8	53081646.4	43.. 77	235953.84	984464.63
13.. 47	4256620.3	48825026.1	44.. 78	199625.11	784839.52
14.. 48	3991920.8	44833105.3	45.. 79	167885.78	616952.74
15.. 49	3740861.3	41092244.0	46.. 80	139718.57	477234.17
16.. 50	3501594.3	37590649.7	47.. 81	114538.16	362696.01
17.. 51	3270639.1	34320010.6	48.. 82	92377.66	270318.35
18.. 52	3047984.0	31272026.6	49.. 83	72973.30	197345.05
19.. 53	2834744.4	28437242.2	50.. 84	55821.21	141523.84
20.. 54	2631461.8	25805780.4	51.. 85	41857.00	99666.84
21.. 55	2437290.0	23368449.8	52.. 86	30744.25	68922.59
22.. 56	2253177.2	21115272.6	53.. 87	22154.28	46768.317
23.. 57	2079963.9	19035308.7	54.. 88	15578.399	31189.918
24.. 58	1917144.2	17118164.5	55.. 89	10931.758	20258.160
25.. 59	1764194.9	15353969.6	56.. 90	7610.659	12647.501
26.. 60	1620616.5	13733353.1	57.. 91	5272.147	7375.354
27.. 61	1485932.6	12247420.5	58.. 92	3483.403	3691.951
28.. 62	1359686.4	10887734.1	59.. 93	2170.670	1721.2812
29.. 63	1242138.1	9645596.0	60.. 94	1139.5872	581.6940
30.. 64	1132116.2	8513479.8	61.. 95	471.9463	109.7477

TABLE XXXII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 35	15602267.	130405581.2	31 & 66	950850.2	6683245.1
1.. 36	11744128.3	118661755.9	32.. 67	860333.8	5822912.3
2.. 37	9417166.6	109244589.3	33.. 68	775891.5	5047020.8
3.. 38	8347282.2	100897307.1	34.. 69	697200.4	4349820.4
4.. 39	7551138.9	93346168.2	35.. 70	623949.6	3725870.8
5.. 40	6963473.8	86382694.4	36.. 71	555945.5	3170025.3
6.. 41	6424399.8	79958294.6	37.. 72	492608.5	2677416.87
7.. 42	5961474 2	73996620.4	38.. 73	433970.42	2243446.45
8.. 43	5553140.1	68443680.3	39.. 74	379675.88	1863769.57
9.. 44	5195384.6	63248295.7	40.. 75	329485.19	1534284.39
10.. 45	4874237.6	58374058.1	41.. 76	283084.92	1251199.46
11.. 46	4576305.6	53797752.5	42.. 77	241360.54	1009838.92
12.. 47	4295155.7	49502596.8	43.. 78	204306.65	805532.27
13.. 48	4028390.0	45474206.8	44.. 79	171918.53	633613.74
14.. 49	3775352.0	41698854.8	45.. 80	143156.44	490457.30
15.. 50	3534179.4	38164675.4	46.. 81	117427.54	373029.76
16.. 51	3303222.5	34861452.9	47.. 82	94768.32	278261.44
17.. 52	3081580.2	31779872.7	48.. 83	74911.98	203349.46
18.. 53	2869135.4	28910737.3	49.. 84	57364.74	145984.72
19.. 54	2665816.4	26244920.9	50.. 85	43078.34	102906.38
20.. 55	2472012.1	23772908.8	51.. 86	31680.04	71226.34
21.. 56	2287076.5	21485832.3	52.. 87	22949.77	48376.574
22.. 57	2111735.2	19374097.1	53.. 88	16083.312	32293.262
23.. 58	1946882.7	17427214.4	54.. 89	11297.937	20995.925
24.. 59	1791992.2	15635222.2	55.. 90	7874.427	13120.895
25.. 60	1646560.2	13988662.0	56.. 91	5461.427	7659.471
26.. 61	1510107.1	12478554.9	57.. 92	3613.121	4046.350
27.. 62	1382173.0	11096381.9	58.. 93	2254.630	1791.7204
28.. 63	1263026.1	9833355.8	59.. 94	1185.4391	606.2819
29.. 64	1151479.6	8681876.2	60.. 95	491.7312	114.5501
30.. 65	1047779.9	7634096.3			

Difference of Age Thirty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 36	15817236.	122968906.7	14 & 50	3566764.5	38725118.9
1.. 37	11184744.1	111784162.6	15.. 51	3333961.6	35391157.3
2.. 38	8965234.6	102818928.0	16.. 52	3112280.1	32278877.3
3.. 39	7943573.2	94875354.8	17.. 53	2900760.3	29378116.9
4.. 40	7182997.6	87692357.2	18.. 54	2698119.9	26679997.0
5.. 41	6619303.2	81073054.0	19.. 55	2504284.9	24175712.1
6.. 42	6102336.2	74970717.8	20.. 56	2319619.8	21856092.3
7.. 43	5658166.6	69312551.2	21.. 57	2143506.5	19712585 8
8.. 44	5267857.3	64044671.9	22.. 58	1976621.2	17735964.6
9.. 45	4925771.5	59118902.4	23.. 59	1819789.4	15916175.2
10.. 46	4618626.0	54500276.4	24.. 60	1672503.9	14243671.3
11.. 47	4333691.1	50166585.3	25.. 61	1534281.8	12709389.5
12.. 48	4064859.2	46101726.1	26.. 62	1404659.5	11304730.0
13.. 49	3809842.7	42291883.4	27.. 63	1283914.1	10020815.9

TABLE XXXIII. 891

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirty-Six Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
28 & 64	1170843.2	8849972.7	44 & 80	146594.31	503619.30
29.. 65	1065701.0	7784271.7	45.. 81	120316.92	383302.38
30.. 66	967396.3	6816875.4	46.. 82	97158.98	286143.40
31.. 67	875570.1	5941305.3	47.. 83	76850.63	209292.77
32.. 68	789880.1	5151425.2	48.. 84	58888.73	150404.04
33.. 69	710000.9	4441424.3	49.. 85	44269.50	106134.54
34.. 70	635619.4	3805804.9	50.. 86	32604.43	73530.11
35.. 71	566439.8	3239365.1	51.. 87	23545.28	49984.830
36.. 72	502179.9	2737185.23	52.. 88	16588.224	33396.606
37.. 73	442569.57	2294615.66	53.. 89	11664.116	21732.490
38.. 74	387352.28	1907263.38	54.. 90	8138.195	13594.295
39.. 75	336283.37	1570980.01	55.. 91	5650.708	7943.587
40.. 76	289130.01	1281850.00	56.. 92	3742.838	4200.749
41.. 77	246697.91	1035152.09	57.. 93	2338.590	1862.1595
42.. 78	208988.17	826163.92	58.. 94	1231.2910	630.8685
43.. 79	175950.31	650213.61	59.. 95	511.5163	119.3522

Difference of Age Thirty-Seven Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 37	15063846.	115864300.5	30 & 67	890806.1	6059443.0
1.. 38	10647985.7	105216314.8	31.. 68	803868.4	5255574.6
2.. 39	8531638.9	96684675.9	32.. 69	722801.5	4532773.1
3.. 40	7556299.5	89128376.4	33.. 70	647289.3	3885483.8
4.. 41	6827977.0	82300399.4	34.. 71	577034.0	3308449.8
5.. 42	6287468.8	76012930.6	35.. 72	511751.4	2796698.42
6.. 43	5791882.1	70221048.5	36.. 73	451168.73	2345529.69
7.. 44	5367507.3	64853541.2	37.. 74	395027.68	1950502.01
8.. 45	4994483.2	59859058.0	38.. 75	343081.55	1607420.46
9.. 46	4667457.3	55191600.7	39.. 76	295095.56	1312324.90
10.. 47	4373767.9	50817832.8	40.. 77	251965.98	1060358.92
11.. 48	4101328.4	46716504.4	41.. 78	213609.68	846749.24
12.. 49	3844333.4	42872171.0	42.. 79	179982.07	666767.17
13.. 50	3599349.6	39272821.4	43.. 80	150032.18	516734.99
14.. 51	3364700.7	35908120.7	44.. 81	123206.32	393528.67
15.. 52	3141242.4	32766878.3	45.. 82	99549.67	293979.00
16.. 53	2929658.9	29837219.4	46.. 83	78789.30	215189.70
17.. 54	2727859.8	27109359.6	47.. 84	60412.74	154776.96
18.. 55	2534631.2	24574728.4	48.. 85	45445.60	109331.36
19.. 56	2349903.2	22224825.2	49.. 86	33505.98	75825.38
20.. 57	2174007.0	20050818.2	50.. 87	24232.30	51593.085
21.. 58	2006359.8	18044458.4	51.. 88	17093.136	34499.949
22.. 59	1847586.5	16196871.9	52.. 89	12030.293	22469.656
23.. 60	1698447.6	14498424.3	53.. 90	8401.963	14067.693
24.. 61	1558456.3	12939968.0	54.. 91	5839.989	8227.704
25.. 62	1427146.0	11512822.0	55.. 92	3872.557	4355.147
26.. 63	1304802.0	10208020.0	56.. 93	2422.549	1932.5987
27.. 64	1190206.6	9017813.4	57.. 94	1277.1428	655.4559
28.. 65	1083621.9	7934191.5	58.. 95	531.3015	124.1544
29.. 66	983942.4	6950249.1			

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Northampton 3 per Cent.)

Difference of Age Thirty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 38	14340929.	109079879.1	29 & 67	906042.3	6177364.9
1.. 39	10133005.3	98946273.8	30.. 68	817856.9	5359568.0
2.. 40	8115695.2	90830578.6	31.. 69	735601.9	4623906.1
3.. 41	7182828.5	83647750.1	32.. 70	658959.2	3964946.9
4.. 42	6485681.5	77162068.6	33.. 71	587628.3	3377318.6
5.. 43	5967596.1	71194172.5	34.. 72	521322.7	2855995.95
6.. 44	5494334.4	65700138.1	35.. 73	459767.87	2396228.08
7.. 45	5088961.8	60611176.3	36.. 74	402703.09	1993524.99
8.. 46	4732565.6	55878610.7	37.. 75	349879.74	1643645.25
9.. 47	4420010.3	51458600.4	38.. 76	301061.09	1342584.16
10.. 48	4139256.4	47319344.0	39.. 77	257164.74	1085419.42
11.. 49	3878824.1	43440519.9	40.. 78	218171.18	867248.24
12.. 50	3631934.7	39808585.2	41.. 79	183962.14	683286.10
13.. 51	3395439.8	36413145.4	42.. 80	153470.05	529816.05
14.. 52	3170204.6	33242940.8	43.. 81	126095.70	403720.35
15.. 53	2956921.7	30286019.1	44.. 82	101940.30	301780.05
16.. 54	2755035.9	27530983.2	45.. 83	80727.95	221052.10
17.. 55	2562569.0	24968414.2	46.. 84	61936.73	159115.37
18.. 56	2378378.8	22590035.4	47.. 85	46621.70	112493.67
19.. 57	2202389.3	20387646.1	48.. 86	34396.13	78097.54
20.. 58	2034908.8	18352737.3	49.. 87	24902.36	53195.184
21.. 59	1875383.7	16477353.6	50.. 88	17591.892	35603.292
22.. 60	1724391.3	14752962.3	51.. 89	12396.472	23206.820
23.. 61	1582631.0	13170331.3	52.. 90	8665.729	14541.091
24.. 62	1449632.6	11720698.7	53.. 91	6029.269	8511.822
25.. 63	1325690.0	10395008.7	54.. 92	4002.276	4509.546
26.. 64	1209570.0	9185438.7	55.. 93	2506.509	2003.037
27.. 65	1101542.9	8083895.8	56.. 94	1322.9947	680.0431
28.. 66	1000438.6	7083407.2	57.. 95	551.0865	128.9566

Difference of Age Thirty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 39	13647342.	102601425.7	16 & 55	2588098.3	25354869.5
1.. 40	9638990.0	92962435.7	17.. 56	2404594.2	22950275.3
2.. 41	7714576.0	85247859.7	18.. 57	2229077.3	20721198.0
3.. 42	6822743.9	78425115.8	19.. 58	2061475.2	18659722.8
4.. 43	6155725.0	72269390.8	20.. 59	1902069.0	16757653.8
5.. 44	5661021.5	66608369.3	21.. 60	1750335.0	15007318.8
6.. 45	5209207.3	61399162.0	22.. 61	1606805.5	13400513.3
7.. 46	4822089.7	56577072.3	23.. 62	1472119.1	11928394.2
8.. 47	4481667.0	52095405.3	24.. 63	1346577.9	10581816.3
9.. 48	4183019.5	47912385.8	25.. 64	1228933.4	9352882.9
10.. 49	3914694.5	43997691.3	26.. 65	1119463.8	8233419.1
11.. 50	3664519.7	40333171.6	27.. 66	1017034.6	7216384.5
12.. 51	3426178.9	36906992.7	28.. 67	921278.4	6295106.1
13.. 52	3199166.8	33707825.9	29.. 68	831845.3	5463260.8
14.. 53	2984184.5	30723641.4	30.. 69	748402.4	4714858.4
15.. 54	2780673.6	27942967.8	31.. 70	670629.1	4044229.3

TABLE XXXIII. 893

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Thirty-Nine Years—continued.

D.	N.	Ages.	D.	N.
598222.6	3446006.7	45 & 84	63460.72	163428.50
530894.2	2915112.54	46.. 85	47797.80	115630.70
468367.02	2446745.52	47.. 86	35286.27	80344.43
410378.51	2036367.01	48.. 87	25563.93	54780.502
356677.92	1679689.09	49.. 88	18078.331	36702.171
307026.63	1372662.46	50.. 89	12758.184	23943.987
262363.48	1110298.98	51.. 90	8929.498	15014.489
222672.65	887626.33	52.. 91	6218.549	8795.940
187890.54	699735.79	53.. 92	4131.993	4663.947
156863.85	542871.94	54.. 93	2590.470	2073.4770
128985.08	413886.86	55.. 94	1368.8467	704.6303
104330.97	309555.89	56.. 95	570.8716	133.7587
82666.67	226869.22			

Difference of Age Forty Years.

D.	N.	Ages.	D.	N.
12981992.	96418428.4	28 & 68	845833.8	5566862.1
9162581.7	87255846.7	29.. 69	761202.9	4805659.2
7327834.2	79928012.5	30.. 70	682298.9	4123360.3
6475639.3	73452373.2	31.. 71	608816.8	3514543.5
5839485.5	67612887.7	32.. 72	540465.6	2974077.90
5367244.1	62245643.6	33.. 73	476966.17	2497111.73
4936029.3	57309614.3	34.. 74	418053.91	2079057.82
4566444.9	52743169.4	35.. 75	363476.10	1715581.72
4241370.2	48501799.2	36.. 76	312992.18	1402589.54
3956083.3	44545715.9	37.. 77	267562.23	1135027.31
3698408.2	40847307.7	38.. 78	227174.11	907853.20
3456918.0	37390389.7	39.. 79	191767.23	716085.97
3228129.0	34162260.7	40.. 80	160213.58	555872.39
3011447.3	31150813.4	41.. 81	131837.43	424034.96
2806311.4	28344502.0	42.. 82	106721.63	317313.33
2612182.6	25732319.4	43.. 83	84605.30	232708.03
2428549.8	23303769.6	44.. 84	64984.72	167723.31
2253647.2	21050122.4	45.. 85	48973.88	118749.43
2086455.6	18963666.8	46.. 86	36176.42	82573.01
1926901.1	17036765.7	47.. 87	26225.50	56347.513
1775240.9	15261524.8	48.. 88	18558.615	37788.898
1630980.2	13630544.6	49.. 89	13110.965	24677.933
1494605.6	12135939.0	50.. 90	9190.048	15487.885
1367466.0	10768473.0	51.. 91	6407.828	9080.057
1248296.9	9520176.1	52.. 92	4261.711	4818.346
1137384.9	8382791.2	53.. 93	2674.430	2143.9161
1033580.7	7349210.5	54.. 94	1414.6986	729.2175
936514.6	6412695.9	55.. 95	590.6565	138.5610

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Forty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 41	12340356.	90521110.1	28 & 69	774003.5	4696335.2
1.. 42	8703249.4	81817860.7	29.. 70	693968.9	4202366.3
2.. 43	6955033.3	74862827.4	30.. 71	619411.0	3582955.3
3.. 44	6142964.8	68719862.6	31.. 72	550037.0	3032918.33
4.. 45	5536446.7	63183415.9	32.. 73	485565.33	2547353.00
5.. 46	5085778.7	58097637.2	33.. 74	425729.32	2121623.68
6.. 47	4674344.0	53423293.2	34.. 75	370274.28	1751349.40
7.. 48	4321602.6	49101690.6	35.. 76	318957.73	1432391.67
8.. 49	4011268.4	45090422.2	36.. 77	272760.98	1159630.69
9.. 50	3737510.3	41352911.9	37.. 78	231675.57	927955.13
10.. 51	3488886.7	37864025.2	38.. 79	195643.93	732311.19
11.. 52	3257091.2	34606934.0	39.. 80	163519.21	568791.98
12.. 53	3038710.1	31568223.9	40.. 81	134652.72	434139.26
13.. 54	2831949.2	28736274.7	41.. 82	109081.64	325057.62
14.. 55	2636266.9	26100007.8	42.. 83	86543.96	238513.66
15.. 56	2451149.4	23648858.4	43.. 84	66508.71	172004.95
16.. 57	2276098.9	21372759.5	44.. 85	50149.99	121854.96
17.. 58	2109453.4	19263306.1	45.. 86	37066.56	84788.40
18.. 59	1950250.7	17313055.4	46.. 87	26887.08	57901.319
19.. 60	1798417.2	15514638.2	47.. 88	19038.897	38862.422
20.. 61	1654187.7	13860450.5	48.. 89	13459.282	25403.140
21.. 62	1517092.2	12343358.3	49.. 90	9444.166	15958.974
22.. 63	1388353.9	10955004.4	50.. 91	6594.801	9364.173
23.. 64	1267660.4	9687344.0	51.. 92	4391.428	4972.745
24.. 65	1155305.8	8532038.2	52.. 93	2758.390	2214.3553
25.. 66	1050126.8	7481911.4	53.. 94	1460.5504	753.8049
26.. 67	951750.6	6530160.8	54.. 95	610.4417	143.3633
27.. 68	859822.1	5670338.7			

Difference of Age Forty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 42	11721718.	84904646.6	17 & 59	1971747.4	17585349.5
1.. 43	8264474.9	76640171.7	18.. 60	1820210.0	15765139.5
2.. 44	6597730.8	70042440.9	19.. 61	1675783.7	14089355.8
3.. 45	5824177.2	64218263.7	20.. 62	1538679.3	12550676.5
4.. 46	5246108.0	58972155.7	21.. 63	1409241.9	11141434.6
5.. 47	4816154.2	54156001.5	22.. 64	1287023.8	9854410.8
6.. 48	4423716.3	49732285.2	23.. 65	1173226.9	8681183.9
7.. 49	4087148.0	45645137.2	24.. 66	1066673.4	7614510.5
8.. 50	3789646.5	41855490.7	25.. 67	966986.9	6647523.6
9.. 51	3525773.6	38329717.1	26.. 68	873810.6	5773713.0
10.. 52	3287211.9	35042505.2	27.. 69	786803.9	4986909.1
11.. 53	3065972.8	31976532.4	28.. 70	705638.7	4281270.4
12.. 54	2857587.0	29118945.4	29.. 71	630005.3	3651265.1
13.. 55	2660351.2	26458594.2	30.. 72	559608.3	3091656.79
14.. 56	2473749.0	23984845.2	31.. 73	494164.47	2597492.32
15.. 57	2297279.8	21687565.4	32.. 74	433404.73	2164087.59
16.. 58	2130468.5	19557096.9	33.. 75	377072.46	1787015.13

TABLE XXXIII. 895

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Northampton 3 per Cent.)

Difference of Age Forty-Two Years—*continued*.

Ages.	D.	N.	Ages.	D.	N.
34 & 76	324923.26	1462091.87	44 & 86	37956.71	86994.36
35.. 77	277959.73	1184132.14	45.. 87	27548.66	59445.708
36.. 78	236177.05	947955.09	46.. 88	19519.180	39926.528
37.. 79	199520.61	748434.48	47.. 89	13807.597	26118.931
38.. 80	166824.86	581609.62	48.. 90	9695.067	16423.864
39.. 81	137430.97	444178.65	49.. 91	6777.156	9646.708
40.. 82	111411.01	332767.64	50.. 92	4519.565	5127.143
41.. 83	88457.77	244309.87	51.. 93	2842.349	2284.7944
42.. 84	68032.71	176277.16	52.. 94	1506.4022	778.3922
43.. 85	51326.09	124951.07	53.. 95	630.2268	148.1654

Difference of Age Forty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 43	11125379.	79548773.1	27 & 70	717308.6	4360093.1
1.. 44	7836107.6	71712665.5	28.. 71	640599.6	3719493.5
2.. 45	6255343.2	65457322.3	29.. 72	569179.8	3150313.72
3.. 46	5518749.4	59938572.9	30.. 73	502763.62	2647550.10
4.. 47	4967983.7	54970589.2	31.. 74	441080.14	2206469.96
5.. 48	4557923.1	50412606.1	32.. 75	383870.64	1822599.32
6.. 49	4183721.9	46228944.2	33.. 76	330688.81	1491710.51
7.. 50	3861333.7	42367610.5	34.. 77	283158.47	1208552.04
8.. 51	3574956.1	38792654.4	35.. 78	240678.52	967873.52
9.. 52	3321966.6	35470687.8	36.. 79	203397.32	764476.20
10.. 53	3094326.1	32376361.7	37.. 80	170130.50	594345.70
11.. 54	2883224.8	29493136.9	38.. 81	140209.22	454136.48
12.. 55	2684435.5	26808701.4	39.. 82	113709.72	340426.76
13.. 56	2496348.5	24312352.9	40.. 83	90346.72	250080.04
14.. 57	2318460.7	21993892.2	41.. 84	69537.16	180542.88
15.. 58	2150294.3	19843597.9	42.. 85	52502.19	128040.69
16.. 59	1991390.7	17852207.2	43.. 86	38846.86	89193.83
17.. 60	1840273.1	16011934.1	44.. 87	28210.23	60983.602
18.. 61	1696090.4	14315843.7	45.. 88	19999.462	40984.140
19.. 62	1558767.3	12757076.4	46.. 89	14155.914	26828.226
20.. 63	1429294.3	11327782.1	47.. 90	9945.967	16882.259
21.. 64	1306387.2	10021394.9	48.. 91	6957.204	9925.055
22.. 65	1191147.8	8830247.1	49.. 92	4644.537	5280.518
23.. 66	1083219.1	7747028.0	50.. 93	2925.285	2355.2335
24.. 67	982222.9	6764805.1	51.. 94	1552.2542	802.9793
25.. 68	887799.0	5877006.1	52.. 95	650.0118	152.9675
26.. 69	799604.4	5077401.7			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Forty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 44	10553832.	74455025.3	26 & 70	728978.4	4438852.1
1 .. 45	7429454.7	67025570.6	27 .. 71	651193.9	3787658.2
2 .. 46	5927304.5	61098266.1	28 .. 72	578751.2	3208906.99
3 .. 47	5226170.9	55872095.2	29 .. 73	511362.77	2697544.22
4 .. 48	4701611.9	51170483.3	30 .. 74	448755.54	2245768.68
5 .. 49	4310647.7	46359835.6	31 .. 75	390668.83	1858119.85
6 .. 50	3952572.0	42907263.6	32 .. 76	336854.36	1541265.49
7 .. 51	3642582.1	39264681.5	33 .. 77	288357.22	1232908.27
8 .. 52	3368306.1	35896375.4	34 .. 78	245179.98	987728.29
9 .. 53	3127041.5	32769333.9	35 .. 79	207274.01	730454.28
10 .. 54	2909888.1	29859445.8	36 .. 80	173436.15	607018.13
11 .. 55	2708519.7	27150926.1	37 .. 81	142987.48	464030.65
12 .. 56	2518948.1	24631978.0	38 .. 82	116008.43	348022.22
13 .. 57	2339641.6	22292336.4	39 .. 83	92210.83	255911.39
14 .. 58	2170119.9	20122216.5	40 .. 84	71022.08	184769.31
15 .. 59	2009922.2	18112294.3	41 .. 85	53663.21	131126.10
16 .. 60	1858606.6	16253687.7	42 .. 86	39737.00	91389.10
17 .. 61	1714785.5	14538902.2	43 .. 87	28871.80	62517.306
18 .. 62	1577655.9	12961246.3	44 .. 88	20479.744	42037.562
19 .. 63	1447954.1	11513292.2	45 .. 89	14504.229	27533.333
20 .. 64	1324976.1	10188316.1	46 .. 90	10196.869	17336.464
21 .. 65	1209068.8	8979247.3	47 .. 91	7137.250	10199.214
22 .. 66	1099765.2	7879482.1	48 .. 92	4767.928	5431.285
23 .. 67	997459.2	6882022.9	49 .. 93	3006.173	2425.1135
24 .. 68	901787.5	5980235.4	50 .. 94	1597.5469	827.5666
25 .. 69	812404.9	5167830.5	51 .. 95	669.7969	157.7697

Difference of Age Forty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 45	10006145.	69609281.8	19 & 64	1342274.0	10354471.7
1 .. 46	7039844.0	62569437.8	20 .. 65	1226272.9	9128198.8
2 .. 47	5613066.3	56956371.5	21 .. 66	1116311.3	8011887.5
3 .. 48	4945955.6	52010415.9	22 .. 67	1012695.2	6999192.3
4 .. 49	4446541.1	47563874.8	23 .. 68	915775.9	6083416.4
5 .. 50	4072485.1	43491389.7	24 .. 69	825205.4	5258211.0
6 .. 51	3728651.6	39762738.1	25 .. 70	740648.4	4517562.6
7 .. 52	3432023.1	36330715.0	26 .. 71	661788.1	3855774.5
8 .. 53	3170662.0	33160053.0	27 .. 72	588322.7	3267451.87
9 .. 54	2940653.4	30219399.6	28 .. 73	519961.93	2747489.94
10 .. 55	2733567.4	27485832.2	29 .. 74	456430.95	2291058.99
11 .. 56	2541547.6	24944284.6	30 .. 75	397467.01	1893591.98
12 .. 57	2360822.5	22583462.1	31 .. 76	342819.90	1550772.08
13 .. 58	2189945.7	20393516.4	32 .. 77	293555.97	1257216.11
14 .. 59	2028453.6	18365062.8	33 .. 78	249681.45	1007534.66
15 .. 60	1875902.4	16489160.4	34 .. 79	211150.71	796383.95
16 .. 61	1731868.9	14757291.5	35 .. 80	176741.79	619642.16
17 .. 62	1595045.6	13162245.9	36 .. 81	145765.74	473876.42
18 .. 63	1465500.2	11696745.7	37 .. 82	118307.15	355569.27

TABLE XXXIII. 897

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Forty-Five Years—*continued.*

Age.	D.	N.	Ages.	D.	N.
38 & 83	94074.92	261494.35	45 & 90	10447.770	17788.288
39.. 84	72487.46	189006.89	46.. 91	7317.298	10470.990
40.. 85	54809.14	134197.75	47.. 92	4891.318	5579.672
41.. 86	40615.74	93582.01	48.. 93	3086.039	2493.6341
42.. 87	29533.38	64048.631	49.. 94	1641.7214	851.9127
43.. 88	20960.028	43088.603	50.. 95	689.3407	162.5720
44.. 89	14852.545	28236.058			

Difference of Age Forty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 46	9421408.	65001759.0	25 & 71	672382.4	3923854.6
1.. 47	6666624.2	58335134.8	26.. 72	597894.0	3325960.66
2.. 48	5312106.5	53023028.3	27.. 73	528561.07	2797399.59
3.. 49	4677628.7	48345399.6	28.. 74	464106.36	2333293.23
4.. 50	4200970.4	44144529.2	29.. 75	404265.19	1929028.04
5.. 51	3841771.4	40302757.8	30.. 76	348785.43	1580242.61
6.. 52	3513117.2	36789640.6	31.. 77	298754.72	1281487.89
7.. 53	3230640.0	33559000.6	32.. 78	254182.93	1027304.96
8.. 54	2981673.9	30577326.7	33.. 79	215027.40	812277.56
9.. 55	2762468.6	27814858.1	34.. 80	180047.44	632230.12
0.. 56	2565051.2	25249806.9	35.. 81	148543.99	483686.13
1.. 57	2382003.3	22867803.6	36.. 82	120605.87	363060.26
2.. 58	2209771.3	20658032.3	37.. 83	95939.03	267141.23
3.. 59	2046985.1	18611047.2	38.. 84	73952.84	193188.39
4.. 60	1893198.2	16717849.0	39.. 85	55940.01	137248.33
5.. 61	1747985.3	14969863.7	40.. 86	41483.05	95765.33
6.. 62	1610936.1	13358927.6	41.. 87	30186.48	65578.851
7.. 63	1481663.5	11877274.1	42.. 88	21440.311	44138.540
8.. 64	1358539.4	10518734.7	43.. 89	15200.861	28937.679
9.. 65	1242282.2	9276452.5	44.. 90	10698.670	18239.009
0.. 66	1132195.6	8144256.9	45.. 91	7497.345	10741.664
.. 67	1027931.4	7116325.5	46.. 92	5014.708	5726.956
.. 68	929764.4	6186561.1	47.. 93	3165.902	2561.0540
.. 69	838005.9	5348555.2	48.. 94	1685.3365	875.7175
.. 70	752318.2	4596237.0	49.. 95	708.4019	167.3156

Difference of Age Forty-Seven Years.

ges.	D.	N.	Ages.	D.	N.
& 47	8978748.	60622988.8	8 & 55	2801003.5	28142070.1
. 48	6309175.0	54313813.8	9.. 56	2592170.7	25549899.4
. 49	5023915.3	49289898.5	10.. 57	2404031.5	23145867.9
. 50	4419190.5	44870708.0	11.. 58	2229597.1	20916270.8
.. 51	3962883.4	40907824.6	12.. 59	2065616.5	18850754.3
.. 52	3619698.3	37288126.3	13.. 60	1910494.0	16940260.3
.. 53	3306975.8	33981150.5	14.. 61	1764101.7	15176158.6
.. 54	3038076.9	30943073.6	15.. 62	1625927.1	13550231.5

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Forty-Seven Years—continued.

Ages.	D.	N.	Ages.	D.	N.
16 & 63	1496414.3	12053817.2	33 & 80	183353.08	644791.63
17.. 64	1373513.9	10680303.3	34.. 81	151322.24	493469.39
18.. 65	1257336.0	9422967.3	35.. 82	122904.58	370564.81
19.. 66	1146976.8	8275990.5	36.. 83	97603.12	272761.69
20.. 67	1042558.1	7233432.4	37.. 84	75118.22	197343.47
21.. 68	943752.7	6289679.7	38.. 85	57070.87	140272.60
22.. 69	850806.4	5438873.3	39.. 86	42338.96	97933.64
23.. 70	763988.2	4674845.1	40.. 87	30831.09	67102.554
24.. 71	682976.6	3991908.5	41.. 88	21914.436	45158.118
25.. 72	607465.5	3384443.02	42.. 89	15549.176	29638.942
26.. 73	537160.22	2847282.80	43.. 90	10949.571	18669.371
27.. 74	471781.78	2375501.02	44.. 91	7677.392	11011.979
28.. 75	411063.37	1964437.65	45.. 92	5138.098	5873.881
29.. 76	354750.98	1604686.67	46.. 93	3245.766	2628.1157
30.. 77	303953.46	1305733.21	47.. 94	1728.9517	899.1640
31.. 78	258684.39	1047048.82	48.. 95	727.2218	171.942
32.. 79	218904.11	828144.71			

Difference of Age Forty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 48	8497327.	56463740.3	24 & 72	617036.8	3442906.24
1.. 49	5966891.1	50496849.2	25.. 73	545759.37	2897146.87
2.. 50	4746344.9	45750504.3	26.. 74	479457.18	2417689.69
3.. 51	4168835.4	41581668.9	27.. 75	417861.55	1999825.14
4.. 52	3733809.4	37847859.5	28.. 76	360716.53	1639111.61
5.. 53	3407302.8	34440556.7	29.. 77	309152.22	1329959.39
6.. 54	3109862.7	31330694.0	30.. 78	263185.85	1066773.54
7.. 55	2853988.9	28476705.1	31.. 79	222780.79	843992.75
8.. 56	2628330.0	25848375.1	32.. 80	186658.73	657334.02
9.. 57	2429448.6	23418926.5	33.. 81	154100.50	503233.52
10.. 58	2250215.8	21168710.7	34.. 82	125203.29	378030.23
11.. 59	2084048.0	19084662.7	35.. 83	99667.23	278363.00
12.. 60	1927789.8	17156872.9	36.. 84	76883.60	201479.40
13.. 61	1780218.2	15376654.7	37.. 85	58201.74	143277.66
14.. 62	1640918.1	13735736.6	38.. 86	43194.87	100082.79
15.. 63	1510339.6	12225397.0	39.. 87	31467.22	68615.577
16.. 64	1357197.3	10838199.7	40.. 88	22382.403	46233.174
17.. 65	1271194.8	9567004.9	41.. 89	15893.027	30340.147
18.. 66	1160875.5	8406129.4	42.. 90	11200.472	19139.675
19.. 67	1056169.0	7349960.4	43.. 91	7857.439	11282.236
20.. 68	957181.6	6392778.8	44.. 92	5261.488	6020.748
21.. 69	863606.9	5529171.9	45.. 93	3325.630	2695.1187
22.. 70	775658.0	4753513.9	46.. 94	1772.5669	922.5518
23.. 71	693570.9	4059943.0	47.. 95	746.0418	176.5100

TABLE XXXIII.   899

y Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Forty-Nine Years.

D.	N.	Ages.	D.	N.
036333.	52514829.0	24 & 73	554358.52	2946997.09
637221.4	46877607.6	25.. 74	487132.59	2459864.50
477455.8	42400151.8	26.. 75	424659.73	2035204.77
927856.2	38472295.6	27.. 76	366682.08	1668522.69
514718.2	34957577.4	28.. 77	314350.96	1354171.73
204209.7	31753367.7	29.. 78	267687.32	1086484.41
921424.9	28831942.8	30.. 79	226657.49	859826.92
678049.1	26153893.7	31.. 80	189964.37	669862.55
463338.1	23690555.6	32.. 81	156878.76	512983.79
274006.7	21416548.9	33.. 82	127502.00	385481.79
103320.6	19313228.3	34.. 83	101531.32	283950.47
945085.6	17368142.7	35.. 84	78348.98	205601.49
796334.6	15571808.1	36.. 85	59332.59	146268.90
655909.2	13915898.9	37.. 86	44050.79	102218.11
524264.9	12391634.0	38.. 87	32103.35	70114.763
400106.3	10991527.7	39.. 88	22844.214	47270.549
283858.9	9707668.8	40.. 89	16232.412	31038.137
173671.3	8533997.5	41.. 90	11448.156	19589.981
068967.4	7465030.1	42.. 91	8037.485	11552.496
969677.9	6495352.2	43.. 92	5384.880	6167.616
875895.3	5619456.9	44.. 93	3405.494	2762.1219
787327.9	4832129.0	45.. 94	1816.1822	945.9397
704165.1	4127963.9	46.. 95	764.8617	181.0780
626608.3	3501355.61			

Difference of Age Fifty Years.

D.	N.	Ages.	D.	N.
7592327.	48769279.7	23 & 73	562957.67	2996837.32
5317862.6	43451417.1	24.. 74	494807.99	2502029.33
1218636.9	39232780.2	25.. 75	431457.91	2070571.42
3697378.9	35535401.3	26.. 76	372647.61	1697923.81
3305222.5	32230178.8	27.. 77	319549.71	1378374.10
3010055.1	29220123.7	28.. 78	272188.80	1106185.30
2741327.9	26478795.8	29.. 79	230534.18	875651.12
2509936.0	23968859.8	30.. 80	193270.02	682381.10
2305727.7	21663132.1	31.. 81	159657.01	522724.09
2125558.4	19537573.7	32.. 82	129800.72	392923.37
1963073.3	17574500.4	33.. 83	103395.43	289527.94
1812451.0	15762049.4	34.. 84	79814.36	209713.58
1670960.2	14091149.2	35.. 85	60463.46	149250.12
1538190.3	12552958.9	36.. 86	44906.69	104343.43
1413015.2	11139943.7	37.. 87	32739.47	71603.959
1295806.3	9844137.4	38.. 88	23306.024	48297.935
1185363.8	8658773.6	39.. 89	16567.332	31730.603
1080750.1	7578023.5	40.. 90	11692.624	20037.979
981428.2	6596595.3	41.. 91	8215.225	11822.754
887330.4	5709264.9	42.. 92	5508.270	6314.484
798530.9	4910734.0	43.. 93	3485.359	2829.1249
714759.4	4195974.6	44.. 94	1859.7974	969.3275
636179.6	3559794.99	45.. 95	783.6816	185.6459

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fifty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 51	7162208.	45222623.6	23 & 74	502483.41	2544187.05
1 .. 52	5010464.0	40212159.6	24 .. 75	438256.10	2105930.95
2 .. 53	3971697.2	36241062.4	25 .. 76	378613.16	1727317.79
3 .. 54	3476995.7	32764066.7	26 .. 77	324748.45	1402569.34
4 .. 55	3104947.3	29659119.4	27 .. 78	276690.27	1125879.07
5 .. 56	2824494.2	26834625.2	28 .. 79	234410.89	891468.18
6 .. 57	2569242.5	24265382.7	29 .. 80	196575.65	694892.53
7 .. 58	2349344.3	21916038.4	30 .. 81	162435.26	532457.27
8 .. 59	2155208.8	19760829.6	31 .. 82	132099.44	400357.83
9 .. 60	1983828.3	17777001.3	32 .. 83	105259.52	295098.31
10 .. 61	1829212.0	15947789.3	33 .. 84	81279.74	213818.57
11 .. 62	1685891.3	14261808.0	34 .. 85	61594.32	152224.25
12 .. 63	1552115.6	12709782.4	35 .. 86	45762.60	106461.65
13 .. 64	1425924.3	11283858.1	36 .. 87	33375.61	73086.045
14 .. 65	1307753.6	9976104.5	37 .. 88	23767.834	49318.211
15 .. 66	1196394.6	8779709.9	38 .. 89	16902.250	32415.961
16 .. 67	1091516.9	7688193.0	39 .. 90	11933.876	20482.085
17 .. 68	992245.9	6695947.1	40 .. 91	8390.656	12091.429
18 .. 69	898062.9	5797864.2	41 .. 92	5630.078	6461.351
19 .. 70	808955.9	4988908.3	42 .. 93	3565.223	2896.1281
20 .. 71	724929.9	4263978.4	43 .. 94	1903.4126	992.7155
21 .. 72	645751.1	3618227.28	44 .. 95	802.5016	190.2139
22 .. 73	571556.82	3046670.46			

Difference of Age Fifty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 52	6748196.	41868601.4	22 & 74	510158.81	2386339.88
1 .. 53	4716461.8	37152339.6	23 .. 75	445054.28	2141285.60
2 .. 54	3734399.0	33417940.6	24 .. 76	384578.70	1756706.90
3 .. 55	3266312.0	30151628.6	25 .. 77	329947.21	1426759.69
4 .. 56	2913536.5	27238092.1	26 .. 78	281191.73	1145567.96
5 .. 57	2647188.2	24590903.9	27 .. 79	238287.58	907280.38
6 .. 58	2404856.2	22186047.7	28 .. 80	199881.31	707399.07
7 .. 59	2195978.0	19990069.7	29 .. 81	165213.52	542185.55
8 .. 60	2011501.6	17978568.1	30 .. 82	134398.15	407787.40
9 .. 61	1848551.6	16130016.5	31 .. 83	107123.63	300663.77
10 .. 62	1701481.9	14428534.6	32 .. 84	82745.12	217918.65
11 .. 63	1566040.9	12862493.7	33 .. 85	62725.19	155193.46
12 .. 64	1438833.2	11423660.5	34 .. 86	46618.51	108574.95
13 .. 65	1319700.9	10103959.6	35 .. 87	34011.74	74563.217
14 .. 66	1207425.3	8896534.3	36 .. 88	24229.644	50333.573
15 .. 67	1101674.3	7794860.0	37 .. 89	17237.169	33096.404
16 .. 68	1002131.0	6792729.0	38 .. 90	12175.126	20921.278
17 .. 69	907942.0	5884747.0	39 .. 91	8563.778	12357.500
18 .. 70	818758.8	5065988.2	40 .. 92	5750.305	6607.195
19 .. 71	734394.0	4331594.2	41 .. 93	3644.064	2963.1312
20 .. 72	654939.6	3676654.66	42 .. 94	1947.0278	1016.1034
21 .. 73	580155.97	3096498.69	43 .. 95	821.3215	194.7819

TABLE XXXIII. 901

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives,
(Northampton 3 per Cent.)

Difference of Age Fifty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 53	6352229.	38700078.3	22 & 75	451852.46	2176637.04
1.. 54	4435336.0	34264742.3	23.. 76	390544.25	1786092.79
2.. 55	3508118.3	30756624.0	24.. 77	335145.95	1450946.84
3.. 56	3064953.7	27691670.3	25.. 78	285693.20	1165253.64
4.. 57	2730641.0	24961029.3	26.. 79	242164.28	923089.36
5.. 58	2477814.7	22483214.6	27.. 80	203186.95	719902.41
6.. 59	2247866.0	20235348.6	28.. 81	167991.78	551910.63
7.. 60	2049552.3	18185796.3	29.. 82	136696.86	415213.77
8.. 61	1874337.9	16311458.4	30.. 83	108987.72	306226.05
9.. 62	1719471.1	14591987.3	31.. 84	84210.50	222015.55
10.. 63	1580523.2	13011464.1	32.. 85	63856.04	158159.51
11.. 64	1451742.2	11559721.9	33.. 86	47474.42	110685.09
12.. 65	1331648.2	10228073.7	34.. 87	34647.87	76037.223
13.. 66	1218456.1	9009617.6	35.. 88	24691.455	51345.768
14.. 67	1111831.7	7897785.9	36.. 89	17572.088	33773.680
15.. 68	1011456.7	6886329.2	37.. 90	12416.376	21357.304
16.. 69	917027.6	5969301.6	38.. 91	8736.899	12620.405
17.. 70	827783.5	5141518.1	39.. 92	5868.949	6751.456
18.. 71	743293.3	4398224.8	40.. 93	3721.881	3029.5751
19.. 72	663490.0	3734734.87	41.. 94	1990.0838	1039.4913
20.. 73	588411.15	3146323.72	42.. 95	840.1415	199.3498
21.. 74	517834.22	2628489.50			

Difference of Age Fifty-Four Years.

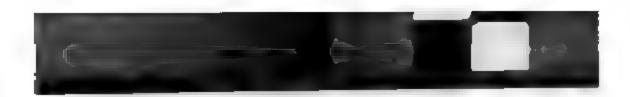| Ages.	D.	N.	Ages.	D.	N.
0 & 54	5973603.	35709006.0	21 & 75	458650.64	2211986.66
1.. 55	4166583.0	31542423.0	22.. 76	396509.78	1815476.88
2.. 56	3291853.4	28250569.6	23.. 77	340344.71	1475132.17
3.. 57	2872552.9	25378016.7	24.. 78	290194.67	1184937.50
4.. 58	2555927.9	22822088.8	25.. 79	246040.97	938896.53
5.. 59	2316061.8	20506027.0	26.. 80	206492.60	732403.93
6.. 60	2097980.6	18408046.4	27.. 81	170770.02	561633.91
7.. 61	1909794.0	16498252.4	28.. 82	138995.58	422638.33
8.. 62	1743456.8	14754795.6	29.. 83	110851.83	311786.50
9.. 63	1597233.6	13157562.0	30.. 84	85675.88	226110.62
10.. 64	1465167.5	11692394.5	31.. 85	64986.91	161123.71
11.. 65	1343595.5	10348799.0	32.. 86	48330.32	112793.39
12.. 66	1229486.8	9119312.2	33.. 87	35283.99	77509.407
13.. 67	1121989.2	7997323.0	34.. 88	25153.265	52356.142
14.. 68	1020782.3	6976540.7	35.. 89	17907.008	34449.134
15.. 69	925561.3	6050979.4	36.. 90	12657.627	21791.507
16.. 70	836030.2	5214949.2	37.. 91	8910.022	12881.485
17.. 71	751486.1	4463463.1	38.. 92	5987.594	6893.891
18.. 72	671530.1	3791932.98	39.. 93	3798.673	3095.2186
19.. 73	596093.06	3195839.92	40.. 94	2032.5807	1062.6379
20.. 74	525202.62	2670637.30	41.. 95	858.7202	203.9177

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fifty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 55	5611640.	3285419.3	21 & 76	402475.33	1844660.11
1.. 56	3909725.6	2878593.7	22.. 77	345543.45	1499316.66
2.. 57	3085209.1	2593454.6	23.. 78	294696.14	1204620.52
3.. 58	2658740.0	2304724.6	24.. 79	249917.67	954702.85
4.. 59	2359075.8	2065544.8	25.. 80	209798.23	744904.62
5.. 60	2161629.0	1854019.8	26.. 81	173548.27	571356.35
6.. 61	1954919.9	1659009.9	27.. 82	141294.29	430062.06
7.. 62	1764137.0	1472662.9	28.. 83	112715.93	317346.13
8.. 63	1619514.1	1330314S.8	29.. 84	87141.25	230204.87
9.. 64	1450658.3	1152490.5	30.. 85	66117.77	164057.10
10.. 65	1356020.7	1046649.8	31.. 86	49156.24	114900.86
11.. 66	1249517.5	9225952.3	32.. 87	35920.13	78980.731
12.. 67	1132146.6	8093405.7	33.. 88	25615.075	53365.656
13.. 68	1030107.9	7163697.8	34.. 89	18241.926	35123.730
14.. 69	934094.9	6129602.9	35.. 90	12898.879	22224.651
15.. 70	843810.2	5285792.7	36.. 91	9083.144	13141.707
16.. 71	758972.7	4526S40.0	37.. 92	6106.238	7035.469
17.. 72	678932.9	3847887.95	38.. 93	3875.466	3160.6031
18.. 73	603316.35	3244571.63	39.. 94	2074.5185	1085.4846
19.. 74	532659.30	2712512.33	40.. 95	877.0575	208.4271
20.. 75	465176.89	2247335.44			

Difference of Age Fifty-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 56	5265700.	30231421.1	20 & 76	408202.26	1874243.05
1.. 57	3664294.8	26567125.3	21.. 77	350742.20	1523500.85
2.. 58	2887809.9	23679316.4	22.. 78	299197.60	1224303.25
3.. 59	2513236.5	21166079.9	23.. 79	253794.36	970508.89
4.. 60	2229774.5	18936305.4	24.. 80	213103.89	757405.00
5.. 61	2014228.2	16922077.2	25.. 81	176326.53	581078.47
6.. 62	1818111.9	15103665.3	26.. 82	143593.00	437485.47
7.. 63	1650149.8	13453515.5	27.. 83	114580.03	322905.44
8.. 64	1501312.6	11952202.9	28.. 84	88606.64	234298.80
9.. 65	1370357.6	10581845.3	29.. 85	67245.64	167050.16
10.. 66	1251989.5	9329855.8	30.. 86	50042.15	117008.01
11.. 67	1142304.0	8187551.8	31.. 87	36556.26	80451.755
12.. 68	1039433.5	7148118.3	32.. 88	26076.885	54374.870
13.. 69	942628.7	6205489.6	33.. 89	18576.846	35798.024
14.. 70	851590.1	5353899.5	34.. 90	13140.129	22657.695
15.. 71	766035.6	4587863.9	35.. 91	9256.267	13401.628
16.. 72	685695.7	3902168.27	36.. 92	6224.883	7176.745
17.. 73	609966.36	3292201.91	37.. 93	3952.258	3224.4876
18.. 74	538506.66	2753695.25	38.. 94	2116.4561	1108.0315
19.. 75	471249.94	2282445.31	39.. 95	895.1536	212.8779

TABLE XXXIII.   903

anatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fifty-Seven Years.

.	D.	N.	Ages.	D.	N.
57	4935148.	27731381.1	20.. 77	355732.99	1547684.96
58	3429844.4	24301536.7	21.. 78	303699.07	1243985.89
59	2699292.4	21602244.3	22.. 79	257671.06	986314.83
60	2345656.4	19256587.9	23.. 80	216409.52	769905.31
61	2077726.8	17178861.1	24.. 81	179104.79	590800.52
62	1873578.9	15305282.2	25.. 82	145891.71	444908.81
63	1689140.7	13616141.5	26.. 83	116444.12	328464.69
64	1529712.4	12086429.1	27.. 84	90072.02	238392.67
65	1389473.3	10696955.8	28.. 85	68379.50	170013.17
66	1265226.4	9431729.4	29.. 86	50898.06	119115.11
67	1152867.7	8278861.7	30.. 87	37192.39	81922.720
68	1048759.1	7230102.6	31.. 88	26538.696	55384.024
69	951162.3	6278940.3	32.. 89	18911.765	36472.259
70	859370.0	5419570.3	33.. 90	13381.380	23090.879
71	773098.4	4646471.9	34.. 91	9429.388	13661.491
72	692076.7	3954395.21	35.. 92	6343.527	7317.964
73	616043.09	3338352.12	36.. 93	4029.051	3288.9137
74	544442.30	2793909.82	37.. 94	2158.3938	1130.5199
75	476960.40	2316949.42	38.. 95	913.2497	217.2702
76	413531.47	1903417.95			

Difference of Age Fifty-Eight Years.

.	D.	N.	Ages.	D.	N.
58	4619386.	25381924.0	19 & 77	360377.19	1571689.03
59	3205942.6	22175981.4	20.. 78	308020.49	1263668.54
60	2519306.2	19656675.2	21.. 79	261547.75	1002120.79
61	2185706.8	17470968.4	22.. 80	219715.17	782405.62
62	1932644.5	15538323.9	23.. 81	181883.04	600522.58
63	1740385.8	13797938.1	24.. 82	148190.44	452332.14
64	1565857.4	12232080.7	25.. 83	118308.23	334023.91
65	1415757.4	10816323.3	26.. 84	91537.40	242486.51
66	1282875.6	9533447.7	27.. 85	69510.36	172976.15
67	1165056.6	8368391.1	28.. 86	51753.96	121222.19
68	1058457.8	7309933.3	29.. 87	37828.51	83393.686
69	959696.0	6350237.3	30.. 88	27000.506	56393.180
70	867149.9	5483087.4	31.. 89	19246.684	37146.496
71	780161.3	4702926.1	32.. 90	13622.631	23523.865
72	698457.6	4004468.54	33.. 91	9602.511	13921.354
73	621775.86	3382692.68	34.. 92	6462.172	7459.182
74	549866.25	2832826.43	35.. 93	4105.843	3353.3398
75	482217.68	2350608.75	36.. 94	2200.3316	1153.0082
76	418542.53	1932066.22	37.. 95	931.3458	221.6624

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Fifty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 59	4317829.	23176911.6	19 & 78	312041.79	1283196.14
1.. 60	2992173.4	20184738.2	20.. 79	265269.39	1017926.75
2.. 61	2347515.5	17847222.7	21.. 80	223020.81	794905.94
3.. 62	2033083.4	15804139.3	22.. 81	184661.29	610244.65
4.. 63	1795251.5	14008857.8	23.. 82	150469.15	459755.59
5.. 64	1613362.4	12395525.4	24.. 83	120172.33	339553.17
6.. 65	1449209.9	10946315.5	25.. 84	93002.78	246520.39
7.. 66	1307143.3	9639172.2	26.. 85	70541.22	175939.17
8.. 67	1181308.5	8457863.7	27.. 86	52609.87	123329.30
9.. 68	1069648.7	7388215.0	28.. 87	38464.65	84864.651
10.. 69	968571.0	6419644.0	29.. 88	27462.316	57402.335
11.. 70	874929.8	5544714.2	30.. 89	19581.662	37820.743
12.. 71	787224.1	4757490.1	31.. 90	13863.882	23956.851
13.. 72	704838.6	4052651.51	32.. 91	9775.633	14181.218
14.. 73	627508.62	3425142.89	33.. 92	6580.816	7600.402
15.. 74	554983.19	2870159.70	34.. 93	4182.636	3417.7659
16.. 75	487021.73	2383137.97	35.. 94	2243.2693	1175.4966
17.. 76	423155.88	1959982.09	36.. 95	949.4419	226.0547
18.. 77	364744.16	1595237.93			

Difference of Age Sixty Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 60	4029922.	21110462.5	18 & 78	315823.03	1302333.06
1.. 61	2788138.1	18322324.4	19.. 79	268732.56	1033600.50
2.. 62	2183593.4	16138731.0	20.. 80	226194.24	807406.26
3.. 63	1898551.2	14250179.8	21.. 81	187439.55	619966.71
4.. 64	1664223.7	12585956.1	22.. 82	152787.86	467178.85
5.. 65	1493176.0	11092780.1	23.. 83	122036.43	345142.42
6.. 66	1338029.3	9754750.8	24.. 84	94168.16	250674.26
7.. 67	1203654.9	8551095.9	25.. 85	71772.09	178902.17
8.. 68	1084569.6	7466526.3	26.. 86	53465.78	125436.39
9.. 69	978811.4	6487714.9	27.. 87	39100.78	86335.617
10.. 70	883020.9	5604694.0	28.. 88	27924.126	58411.491
11.. 71	794287.0	4810407.0	29.. 89	19916.522	38494.969
12.. 72	711219.5	4099187.52	30.. 90	14105.132	24389.837
13.. 73	633241.40	3465946.12	31.. 91	9948.756	14441.081
14.. 74	560100.13	2905845.99	32.. 92	6699.461	7741.620
15.. 75	491553.85	2414292.14	33.. 93	4259.428	3482.1919
16.. 76	427371.53	1986920.61	34.. 94	2284.2069	1197.9950
17.. 77	368764.52	1618156.09	35.. 95	967.5380	230.4470

TABLE XXXIII.   946

Table for finding the Values of Annuities, &c. on Two Joint Lives
(Northampton 3 per Cent.)

Difference of Age Sixty-One Years.

D.	N.	Ages	D.	N.
5122.	19176930.6	18 & 79	271988.99	1048942.72
3448.2	16583442.4	19.. 80	229147.28	819795.44
8361.4	14555121.0	20.. 81	190106.68	629698.76
0713.8	12804407.2	21.. 82	155086.57	474692.19
0248.4	11264159.8	22.. 83	123900.52	35070 .67
8622.5	9865536.3	23.. 84	95933.54	254768 13
2095.6	8653440.7	24.. 85	72902.95	181865.18
5056.0	754x354.7	25.. 86	54321.69	127543.49
2465.2	6555x89.5	26.. 87	39736.91	87806.582
2356.8	5664632.7	27.. 88	28385.937	59420.645
1032.3	4861900.4	28.. 89	20251.441	39169.204
7600.5	4144299.93	29.. 90	14346.383	24822.x21
s974.16	3505325.77	30.. 91	10121.877	14700.944
5217.07	2940108.70	31.. 92	6818.105	7842.839
5055.97	2444022.73	32.. 93	4236.211	3546.6179
1348.56	2012674.17	33.. 94	2326.1446	1220.4733
2438.30	1640235.87	34.. 95	965.6341	234.8392
3304.16	1320931.71			

Difference of Age Sixty-Two Years.

D.	N.	Ages	D.	N.
2910.	17371032.1	17 & 79	274986.96	1063831.47
3079.5	14961952.6	18.. 80	231924.01	831907.46
J319.8	13081632.8	19.. 81	192588.58	639318.68
3295.5	11461337.3	20.. 82	157293.34	482025.54
2083.7	10039253.6	21.. 83	125764.63	356260.91
3474.9	8769779.7	22.. 84	97398.92	258861.99
1197.7	7658581.0	23.. 85	74033.81	184828.18
1239.4	6627341.6	24.. 86	55177.60	129650.58
1804.7	5722536.9	25.. 87	40373.03	69277.548
3107.6	4912429.1	26.. 88	28847.747	60429.801
1236.7	4184192.39	27.. 89	20586.361	39843.440
1706.93	3543465.46	28.. 90	14587.634	25255.x06
3334.01	2973151.45	29.. 91	10294.999	14960.807
3618.09	2472533.36	30.. 92	6936.750	8024.057
5325.59	2037207.77	31.. 93	4413.013	3611.0440
5904.14	1661303.63	32.. 94	2369.0824	1242.9616
2485.20	1348818.43	33.. 95	1003.7302	239.2314

Difference of Age Sixty-Three Years.

D.	N.	Ages	D.	N.
1598.	15686143.8	5 & 68	1165516.0	7741635.6
1251.0	13452822.8	6.. 69	1035133.6	6706502.0
7246.6	11712636.2	7.. 70	921920.6	5784581.4
5989.5	10216646.7	8.. 71	821408.3	4963173.1
3495.1	8907151.6	9.. 72	731893.8	4231279.29

TABLE XXXIII.

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Sixty-Three Years—*continued.*

Ages.	D.	N.	Ages.	D.	N.
10 & 73	650669.00	3580610.29	22 & 85	75164.67	187791.18
11.. 74	575450.95	3005159.34	23.. 86	56033.51	131757.67
12.. 75	505150.21	2500009.13	24.. 87	41009.16	90748.514
13.. 76	439302.62	2060706.51	25.. 88	29309.557	61438.957
14.. 77	379369.97	1681336.54	26.. 89	20921.279	40517.678
15.. 78	325486.18	1355850.36	27.. 90	14828.886	25688.791
16.. 79	277726.49	1078123.87	28.. 91	10468.122	15220.670
17.. 80	234480.38	843643.49	29.. 92	7055.394	8165.276
18.. 81	194922.32	648721.17	30.. 93	4489.806	3675.470
19.. 82	159346.85	489374.32	31.. 94	2410.0201	1265.4500
20.. 83	127554.17	361820.15	32.. 95	1021.8263	243.6237
21.. 84	98864.30	262955.85			

Difference of Age Sixty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 64	3007788.	14117346.9	16 & 80	236816.37	854688.85
1.. 65	2066886.3	12050460.6	17.. 81	197070.84	657618.01
2.. 66	1606738.2	10443722.4	18.. 82	161277.77	496340.24
3.. 67	1377549.9	9066172.5	19.. 83	129219.42	367320.82
4.. 68	1202259.0	7863913.5	20.. 84	100271.07	267049.75
5.. 69	1066537.4	6797376.1	21.. 85	76295.54	190754.21
6.. 70	943704.3	5853671.8	22.. 86	56889.42	133864.79
7.. 71	836946.5	5016725.3	23.. 87	41645.30	92219.491
8.. 72	742103.3	4274622.01	24.. 88	29771.377	62448.114
9.. 73	657548.32	3617073.69	25.. 89	21256.199	41191.915
10.. 74	580772.57	3036301.12	26.. 90	15070.136	26121.779
11.. 75	509682.33	2526618.79	27.. 91	10641.245	15480.534
12.. 76	443279.65	2083339.14	28.. 92	7174.040	8306.494
13.. 77	382835.80	1700503.34	29.. 93	4566.598	3739.8961
14.. 78	328487.16	1372016.18	30.. 94	2451.9577	1287.9384
15.. 79	280310.96	1091705.22	31.. 95	1039.9224	248.0160

Difference of Age Sixty-Five Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 65	2783725.0	12658492.7	9 & 74	586912.90	3066911.09
1.. 66	1908318.8	10750173.9	10.. 75	514395.73	2552515.36
2.. 67	1479530.4	9270643.5	11.. 76	447256.68	2105258.68
3.. 68	1264740.6	8005902.9	12.. 77	386301.63	1718957.05
4.. 69	1100160.0	6905742.9	13.. 78	331488.14	1387468.91
5.. 70	972334.3	5933408.6	14.. 79	282895.42	1104573.49
6.. 71	856722.5	5076686.1	15.. 80	239020.13	865553.36
7.. 72	756141.4	4320544.73	16.. 81	199034.13	666519.23
8.. 73	666720.74	3653823.99	17.. 82	163055.45	503463.78

TABLE XXXIII. 907

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Sixty-Five Years—*continued*.

	D.	N.	Ages.	D.	N.
83	130785.27	372678.51	25 & 90	15311.397	26554.763
84	101580.14	271098.37	26.. 91	10814.366	15740.397
85	77381.17	193717.20	27.. 92	7292.683	8447.714
86	57745.33	133971.87	28.. 93	4643.392	3804.3222
87	42281.43	93690.445	29.. 94	2493.8955	1310.4267
88	30233.178	63457.267	30.. 95	1058.0185	252.4082
89	21591.117	41866.150			

Difference of Age Sixty-Six Years.

	D.	N.	Ages.	D.	N.
66	2570163.	11304910.5	15 & 81	200886.31	674755.13
67	1757234.5	9547676.0	16.. 82	164679.88	510075.25
68	1358360.3	8189306.2	17.. 83	132226.84	377848.41
69	1157335.6	7031970.6	18.. 84	102811.06	275037.35
70	1002987.2	6028983.4	19.. 85	78391.40	196645.95
71	882713.7	5146269.7	20.. 86	58566.99	138078.96
72	774008.0	4372261.70	21.. 87	42917.55	95161.410
73	679332.84	3692928.86	22.. 88	30694.988	64466.422
74	595100.00	3097828.86	23.. 89	21926.037	42540.385
75	519834.27	2577994.59	24.. 90	15552.637	26987.748
76	451392.79	2126601.80	25.. 91	10987.488	16000.260
77	389767.46	1736834.34	26.. 92	7411.328	8588.932
78	334489.12	1402345.22	27.. 93	4720.184	3868.7482
79	285479.89	1116865.33	28.. 94	2535.8332	1332.9150
80	241223.89	875641.44	29.. 95	1076.1146	256.8004

Difference of Age Sixty-Seven Years.

	D.	N.	Ages.	D.	N.
7	2366680.	10052108.4	15 & 82	166212.35	516321.96
8	1613332.2	8438776.2	16.. 83	133544.13	382777.83
9	1245013.0	7195763.2	17.. 84	103944.29	278833.54
0	1055112.7	6140650.5	18.. 85	79341.33	199492.21
1	910541.2	5230109.3	19.. 86	59331.61	140160.60
2	797489.8	4432619.52	20.. 87	43528.23	96632.376
3	695384.55	3737234.97	21.. 88	31156.798	65475.578
4	606357.26	3130877.71	22.. 89	22260.955	43214.623
5	527085.67	2603792.04	23.. 90	15793.889	27420.734
6	456165.23	2147626.81	24.. 91	11160.611	16260.123
7	393371.92	1754254.89	25.. 92	7529.972	8730.151
8	337490.10	1416764.79	26.. 93	4796.977	3933.1744
9	288064.35	1128700.44	27.. 94	2577.7709	1355.4035
10	243427.66	885272.78	28.. 95	1094.2107	261.1928
11	202738.47	682534.31			

Preparatory Table for finding the Values of Annuities &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Sixty-Eight Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 68	2172869.	8895763.2	14 & 82	167744.83	522214.49
1.. 69	1476324.1	7419439.1	15.. 83	134786.87	387427.62
2.. 70	1133223.1	6286216.0	16.. 84	104979.82	282447.80
3.. 71	957862.4	5328353.6	17.. 85	80215.86	202231.94
4.. 72	822630.7	4505722.92	18.. 86	60050.57	142181.37
5.. 73	716481.16	3789241.76	19.. 87	44096.50	98084.870
6.. 74	620684.69	3168557.07	20.. 88	31600.136	66484.734
7.. 75	537056.34	2631500.73	21.. 89	22595.875	43388.859
8.. 76	462528.47	2168972.26	22.. 90	16035.139	27853.720
9.. 77	397530.93	1771441.33	23.. 91	11333.733	16519.987
10.. 78	340611.12	1430830.21	24.. 92	7648.613	8871.369
11.. 79	290648.82	1140181.39	25.. 93	4873.769	3997.6003
12.. 80	245631.42	894549.97	26.. 94	2619.7085	1377.8318
13.. 81	204590.65	689959.32	27.. 95	1112.3068	265.5850

Difference of Age Sixty-Nine Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 69	1988344.	7831708.4	14 & 83	136029.60	391808.45
1.. 70	1345926.1	6485782.3	15.. 84	105956.94	285851.51
2.. 71	1028773.3	5457009.0	16.. 85	81015.00	204836.51
3.. 72	865393.0	4591626.05	17.. 86	60712.48	144124.03
4.. 73	739068.25	3852557.80	18.. 87	44630.86	99493.176
5.. 74	639515.03	3213042.77	19.. 88	32012.686	67480.490
6.. 75	549746.27	2663296.50	20.. 89	22917.397	44563.093
7.. 76	471277.93	2192018.57	21.. 90	16276.390	28286.703
8.. 77	403076.26	1788942.31	22.. 91	11506.854	16779.849
9.. 78	344212.30	1444730.01	23.. 92	7767.261	9012.588
10.. 79	293336.66	1151393.35	24.. 93	4950.562	4062.0264
11.. 80	247835.19	903558.16	25.. 94	2661.6463	1400.3801
12.. 81	206442.81	697115.35	26.. 95	1130.4029	269.9772
13:. 82	169277.30	527838.05			

Difference of Age Seventy Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 70	1812721.	6855955.3	13 & 83	137272.34	395987.58
1.. 71	1221871.3	5634084.0	14.. 84	106933.66	289053.92
2.. 72	929447.6	4704636.41	15.. 85	81768.91	207285.01
3.. 73	777477.79	3927158.62	16.. 86	61317.33	145967.68
4.. 74	659675.77	3267482.85	17.. 87	45122.80	100844.878
5.. 75	566424.48	2701058.37	18.. 88	32400.607	68444.271
6.. 76	482413.61	2218644.76	19.. 89	23216.591	45227.680
7.. 77	410701.09	1807943.67	20.. 90	16507.991	28719.689
8.. 78	349013.86	1458929.81	21.. 91	11679.977	17039.712
9.. 79	296438.03	1162491.78	22.. 92	7885.906	9153.806
10.. 80	250127.10	912364.68	23.. 93	5027.354	4126.4524
11.. 81	208294.98	704069.70	24.. 94	2703.5840	1422.8684
12.. 82	170809.78	533259.92	25.. 95	1148.4990	274.3694

TABLE XXXIII. 909

A Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Seventy-One Years.

	D.	N.	Ages.	D.	N.
1	1645642.	5964690.1	13 & 84	107910.58	292108.00
2	1103902.6	4660787.50	14.. 85	82522.82	209585.18
3	835034.77	4025752.73	15.. 86	61887.93	147697.25
4	693959.27	3331793.46	16.. 87	45572.33	102124.921
75	584281.04	2747512.42	17.. 88	32757.740	69367.181
76	497049.06	2250463.34	18.. 89	23497.924	45859.257
77	420405.42	1830057.92	19.. 90	16723.507	29145.750
78	355616.01	1474441.91	20..	11846.175	17299.575
79	300573.16	1173868.75	21.. 92	8004.550	9295.025
80	252771.62	921097.13	22.. 93	5104.147	4190.8786
81	210221.23	710875.90	23.. 94	2745.5218	1445.3568
82	172342.25	538533.65	24.. 95	1166.5950	278.7618
83	138515.07	400018.58			

Difference of Age Seventy-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 72	1486759.	5154281.33	12 & 84	109887.50	295054.37
1.. 73	991768.61	4162312.72	13.. 85	83276.73	211777.64
2.. 74	745333.33	3417179.39	14.. 86	62458.54	149319.10
3.. 75	614646.24	2802533.15	15.. 87	45996.41	103322.696
4.. 76	512718.57	2289814.58	16.. 88	33084.086	70238.610
5.. 77	433159.67	1856654.91	17.. 89	23756.928	46481.683
6.. 78	364018.75	1492636.16	18.. 90	16926.159	29555.523
7.. 79	306258.98	1186377.18	19.. 91	12000.830	17554.693
8.. 80	256297.64	930079.54	20.. 92	8118.450	9436.243
9.. 81	212443.84	717635.70	21.. 93	5180.939	4255.3046
10.. 82	173936.03	543699.67	22.. 94	2787.4594	1467.8452
11.. 83	139757.80	403941.87	23.. 95	1184.6912	283.1540

Difference of Age Seventy-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 73	1335734.6	4421283.28	12 & 85	84030.64	213893.01
1.. 74	885230.45	3536052.83	13.. 86	63029.14	150863.87
2.. 75	660148.74	2875904.09	14.. 87	46420.50	104443.369
3.. 76	539364.67	2336539.42	15.. 88	33391.959	71051.410
4.. 77	446815.06	1869724.36	16.. 89	23993.604	47057.806
5.. 78	375062.35	1514662.01	17.. 90	17112.726	29945.080
6.. 79	313495.44	1201166.53	18.. 91	12146.252	17798.826
7.. 80	261145.91	940020.62	19.. 92	8224.438	9574.390
8.. 81	215407.31	724613.31	20.. 93	5254.660	4319.7307
9.. 82	173775.00	546838.31	21.. 94	2829.3971	1490.3336
10.. 83	141050.24	407788.07	22.. 95	1202.7873	287.5463
11.. 84	109854.42	297923.65			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Li
(Northampton 3 per Cent.)

Difference of Age Seventy-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 74	1192246.7	3762465.86	11 & 85	84784.54	215954.
1.. 75	784056.93	2978408.93	12.. 86	63599.75	152354.
2.. 76	579294.04	2399114.89	13.. 87	46844.59	105509
3.. 77	470036.14	1929078.75	14.. 88	33699.633	71810.
4.. 78	386866.20	1542192.55	15.. 89	24216.884	47593.
5.. 79	323006.31	1219186.24	16.. 90	17263.210	30309.
6.. 80	267316.45	951869.79	17.. 91	12280.135	16029.
7.. 81	219482.09	732387.70	18.. 92	8324.099	9705.
8.. 82	178226.97	554160.73	19.. 93	5323.261	4382.
9.. 83	142541.53	411619.20	20.. 94	2869.6573	1512
10.. 84	110880.42	300738.78	21.. 95	1220.8834	291

Difference of Age Seventy-Five Years.

Ages.	D.	N.	Ages.	D.	N
0 & 75	1055984.1	3174863.82	11 & 86	64170.35	153800
1.. 76	688026.02	2486837.80	12.. 87	47268.68	106539
2.. 77	504833.09	1962004.71	13.. 88	34007.706	72533
3.. 78	406992.77	1575011.94	14.. 89	24440.163	4809
4.. 79	333189.09	1241822.85	15.. 90	17444.044	3064
5.. 80	275426.30	966396.55	16.. 91	12402.474	1824
6.. 81	224668.16	741728.39	17.. 92	8415.851	982
7.. 82	181598.41	560129.98	18.. 93	5387.767	444
8.. 83	144529.91	415600.07	19.. 94	2907.1215	153
9.. 84	112052.72	303547.35	20.. 95	1238.2556	29
10.. 85	85568.61	217978.74			

Difference of Age Seventy-Six Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 76	926647.7	2656054.63	10 & 86	64763.78	15523
1.. 77	599588.93	2056465.70	11.. 87	47692.76	10754
2.. 78	437122.60	1619343.10	12.. 88	34315.580	7323
3.. 79	350505.01	1268838.09	13.. 89	24663.443	4856
4.. 80	284109.12	984728.97	14.. 90	17604.878	3096
5.. 81	231484.14	753244.83	15.. 91	12517.889	1844
6.. 82	185889.34	567355.49	16.. 92	8499.693	994
7.. 83	147263.91	420091.53	17.. 93	5447.153	449
8.. 84	113615.79	306475.79	18.. 94	2942.3493	155
9.. 85	86473.30	220002.49	19.. 95	1254.4214	30

TABLE XXXIII. 911

...atory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Seventy-Seven Years.

.	D.	N.	Ages.	D.	N.
77	807538.8	2201116.01	10 & 87	48133.82	108538.274
78	519169.37	1681946.64	11.. 88	34623.453	73914.821
79	376453.03	1305493.61	12.. 89	24886.722	49028.099
80	298874.34	1006619.27	13.. 90	17765.712	31262.387
81	238781.69	767837.58	14.. 91	12633.303	18629.084
82	191528.84	576308.74	15.. 92	8578.790	10050.294
83	150743.57	425565.17	16.. 93	5501.420	4548.8745
84	115765.02	309800.15	17.. 94	2974.7812	1574.0933
85	87679.56	222120.59	18.. 95	1269.6223	304.4710
86	65448.50	156672.09			

Difference of Age Seventy-Eight Years.

	D.	N.	Ages.	D.	N.
78	699228.1	1804565.56	9 & 87	48642.72	109535.604
79	447112.27	1357453.29	10.. 88	34943.642	74591.962
80	321000.12	1036453.17	11.. 89	25110.002	49481.960
81	251191.21	785261.96	12.. 90	17926.546	31555.414
82	197566.80	587695.16	13.. 91	12748.719	18806.695
83	155316.82	432378.34	14.. 92	8657.886	10148.809
84	118500.39	313877.95	15.. 93	5552.615	4596.1942
85	89338.15	224539.80	16.. 94	3004.4171	1591.7771
86	66361.43	158178.32	17.. 95	1283.6165	308.1606

Difference of Age Seventy-Nine Years.

	D.	N.	Ages.	D.	N
79	602180.1	1460156.15	9 & 88	35313.090	75274.855
80	381251.00	1078905.15	10.. 89	25342.212	49932.643
81	269787.00	809118.15	11.. 90	18087.380	31845.263
82	207834.39	601283.76	12.. 91	12864.133	18981.130
83	160213.19	441070.57	13.. 92	8736.983	10244.147
84	122095.46	318975.11	14.. 93	5603.810	4640.3374
85	91449.10	227526.01	15.. 94	3032.3757	1607.9617
86	67616.81	159909.20	16.. 95	1296.4044	311.5573
87	49321.26	110587.945			

Difference of Age Eighty Years.

	D.	N.	Ages.	D.	N.
80	513476.8	1163626.62	8 & 88	35805.688	75993.891
81	320425.32	843201.30	9.. 89	25610.147	50388.744
82	223220.45	619980.85	10.. 90	18254.647	32134.097
83	168539.51	451441.34	11.. 91	12979.549	19154.548
84	125944.53	325496.81	12.. 92	8816.079	10338.469
85	94223.47	231273.34	13.. 93	5655.006	4683.4636
86	69214.51	162058.83	14.. 94	3060.3341	1623.1295
87	50354.25	111804.579	15.. 95	1308.4684	314.6611

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Eighty-One Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 81	431555.5	911900.11	8 & 89	25967.394	50875.017
1.. 82	265118.35	646781.76	9.. 90	18447.648	32427.369
2.. 83	181016.55	465765.21	10.. 91	13099.579	19327.790
3.. 84	132489.89	333275.32	11.. 92	8895.175	10432.615
4.. 85	97193.88	236081.44	12.. 93	5706.201	4726.4145
5.. 86	71314.33	164767.11	13.. 94	3088.2926	1638.1219
6.. 87	51441.69	113325.420	14.. 95	1320.5325	317.5894
7.. 88	36483.009	76842.411			

Difference of Age Eighty-Two Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 82	357066.9	701351.89	7 & 89	26453.609	51447.955
1.. 83	214992.89	486359.00	8.. 90	18704.982	32742.273
2.. 84	142298.16	344060.84	9.. 91	13238.077	19504.196
3.. 85	102245.07	241815.77	10.. 92	8977.435	10526.761
4.. 86	73562.52	168253.25	11.. 93	5757.396	4769.3651
5.. 87	53002.33	115250.919	12.. 94	3116.2510	1653.1141
6.. 88	37345.055	77905.864	13.. 95	1332.5966	320.5175

Difference of Age Eighty-Three Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 83	289556.9	528618.95	7 & 90	19058.816	33118.048
1.. 84	169007.16	359611.79	8.. 91	13422.741	19695.307
2.. 85	109314.30	249797.49	9.. 92	9072.352	10622.955
3.. 86	77385.58	172411.91	10.. 93	5810.639	4812.3159
4.. 87	54673.23	117738.685	11.. 94	3144.2095	1668.1064
5.. 88	38478.030	79260.655	12.. 95	1344.6607	323.4457
6.. 89	27083.791	52176.864			

Difference of Age Eighty-Four Years.

Ages.	D.	N.	Ages.	D.	N.
0 & 84	227622.3	391764.92	6 & 90	19509.151	33604.016
1.. 85	130426.17	261338.75	7.. 91	13676.653	19927.363
2.. 86	83114.47	178224.28	8.. 92	9198.906	10728.457
3.. 87	57514.61	120709.677	9.. 93	5872.073	4856.3847
4.. 88	39691.051	81018.626	10.. 94	3173.2862	1663.0986
5.. 89	27905.459	53113.167	11.. 95	1356.7247	326.3738

TABLE XXXIII. 913

aratory Table for finding the Values of Annuities, &c. on Two Joint Lives.
(Northampton 3 per Cent.)

Difference of Age Eighty-Five Years.

	D.	N.	Ages.	D.	N.
5	175660.7	285359.41	6 & 91	13999.814	20232.312
6	98714.84	166644.57	7.. 92	9372.917	10859.395
7	61772.44	124872.129	8.. 93	5953.985	4905.4099
8	41753.804	83118.325	9.. 94	3206.8365	1698.5734
9	28785.179	54333.146	10.. 95	1369.2714	329.3020
0	20101.020	34232.126			

Difference of Age Eighty-Six Years.

	D.	N.	Ages.	D.	N.
6	132951.2	204280.89	5 & 91	14424.541	20628.666
7	73366.97	130913.919	6.. 92	9594.387	11034.279
8	44844.854	86069.065	7.. 93	6066.614	4967.6654
9	30281.152	55787.913	8.. 94	3251.5700	1716.0954
0	20734.706	35053.207	9.. 95	1383.7482	332.3472

Difference of Age Eighty-Seven Years.

	D.	N.	Ages.	D.	N.
7	98812.1	143623.973	5 & 92	9885.461	11261.950
8	53262.116	90361.857	6.. 93	6209.960	5051.9905
9	32522.877	57838.980	7.. 94	3313.0787	1738.9118
0	21812.294	36026.686	8.. 95	1403.0507	335.8611
1	14879.275	21147.411			

Difference of Age Eighty-Eight Years.

	D.	N.	Ages.	D.	N.
8	71734.52	99463.914	4 & 92	10197.101	11559.857
9	38627.336	60836.578	5.. 93	6398.357	5161.5001
0	23427.066	37409.512	6.. 94	3391.3623	1770.1378
1	15652.554	21756.958	7.. 95	1429.5917	340.5461

Difference of Age Eighty-Nine Years.

	D.	N.	Ages.	D.	N.
9	52024.10	67267.305	4 & 93	6600.066	5304.6088
0	27824.265	39443.040	5.. 94	3494.2495	1810.3593
1	16811.319	22631.721	6.. 95	1463.3711	346.9882
2	10727.047	11904.674			

Preparatory Table for finding the Values of Annuities, &c. on Two Joint Lives. (Northampton 3 per Cent.)

Difference of Age Ninety Years.			Diff. of Age Ninety-One Years.		
Ages.	D.	N.	Ages.	D.	N.
0 & 90	37474.29	43898.368	0 & 91	26891.64	26853.728
.. 91	19966.761	23931.607	1.. 92	13683.668	13170.060
2.. 92	11521.174	12410.433	2.. 93	7457.071	5712.9695
3.. 93	6943.073	5467.3598	3.. 94	3791.7277	1921.3618
4.. 94	3604.4060	1862.9538	4.. 95	1555.2992	365.9626
5.. 95	1507.7668	355.1870			

Diff. of Age Ninety-Two Years.			Diff. of Age Ninety-Three Years.		
Ages.	D.	N.	Ages.	D.	N.
0 & 92	18429.45	14942.803	0 & 93	11928.45	6991.1854
1.. 93	8856.744	6086.0589	1.. 94	4836.8153	2154.3701
2.. 94	4072.4307	2013.6282	2.. 95	1757.2517	397.1184
3.. 95	1636.1285	377.4997			

Diff. of Age Ninety-Four Years.			Diff. of Age Ninety-Five Years.		
Ages.	D.	N.	Ages.	D.	N.
0 & 94	6514.322	2513.6005	0 & 95	2310.927	506.5734
1.. 95	2087.0833	426.5172			

TABLE XXXIV. 915

ring the Annual Premium for the Assurance of £100 on a Single Life for 1, 4, or 10 Years, or for the whole period of Life, according to the Northampton e of Mortality, at 3 per Cent.

Age.	1 Year.			4 Years.			7 Years.			10 Years.			Life.			Age.
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	
14	0	17	9	0	18	11	1	1	4	1	3	5	1	17	7	14
15	0	17	11	1	0	3	1	2	11	1	4	7	1	18	7	15
16	0	19	2	1	2	1	1	4	6	1	6	0	1	19	7	16
17	1	1	2	1	4	1	1	6	1	1	6	11	2	0	8	17
18	1	3	3	1	6	0	1	7	5	1	8	4	2	1	8	18
19	1	5	0	1	7	•6	1	8	6	1	9	3	2	2	8	19
20	1	7	3	1	8	8	1	9	5	1	10	1	2	3	7	20
21	1	8	9	1	9	5	1	10	1	1	10	9	2	4	6	21
22	1	9	3	1	9	10	1	10	6	1	11	3	2	5	4	22
23	1	9	8	1	10	4	1	11	0	1	11	9	2	6	2	23
24	1	10	2	1	10	10	1	11	6	1	12	3	2	7	1	24
25	1	10	7	1	11	4	1	12	1	1	12	9	2	8	1	25
26	1	11	1	1	11	10	1	12	7	1	13	4	2	9	0	26
27	1	11	7	1	12	4	1	13	2	1	13	11	2	10	1	27
28	1	12	1	1	12	11	1	13	9	1	14	7	2	11	1	28
29	1	12	8	1	13	6	1	14	4	1	15	2	2	12	3	29
30	1	13	3	1	14	1	1	14	11	1	15	10	2	13	4	30
31	1	13	9	1	14	8	1	15	7	1	16	6	2	14	6	31
32	1	14	5	1	15	4	1	16	3	1	17	4	2	15	9	32
33	1	15	0	1	15	11	1	16	11	1	18	2	2	17	1	33
34	1	15	8	1	16	8	1	17	8	1	19	1	2	18	5	34
35	1	16	4	1	17	4	1	18	7	2	0	1	2	19	10	35
36	1	17	0	1	18	1	1	19	7	2	1	1	3	1	4	36
37	1	17	9	1	18	11	2	0	8	2	2	1	3	2	10	37
38	1	18	6	2	0	0	2	1	9	2	3	2	3	4	6	38
39	1	19	3	2	1	3	2	2	11	2	4	4	3	6	2	39
40	2	0	7	2	2	7	2	4	1	2	5	8	3	7	11	40
41	2	2	0	2	3	10	2	5	4	2	7	1	3	9	10	41
42	2	3	6	2	5	0	2	6	6	2	8	6	3	11	8	42
43	2	4	6	2	6	0	2	7	9	2	10	0	3	13	8	43
44	2	5	6	2	7	2	2	9	2	2	11	7	3	15	9	44
45	2	6	8	2	8	4	2	10	10	2	13	3	3	17	11	45
46	2	7	9	2	9	9	2	12	6	2	15	0	4	0	2	46
47	2	9	0	2	11	6	2	14	4	2	16	11	4	2	7	47
48	2	10	3	2	13	7	2	16	4	2	18	11	4	5	1	48
49	2	12	3	2	15	9	2	18	6	3	1	1	4	7	10	49
50	2	15	1	2	18	0	3	0	8	3	3	5	4	10	7	50
51	2	17	4	2	19	11	3	2	8	3	5	7	4	13	6	51
52	2	19	1	3	1	10	3	4	9	3	7	11	4	16	5	52
53	3	1	0	3	3	11	3	7	0	3	10	3	4	19	7	53
54	3	2	11	3	6	1	3	9	5	3	12	10	5	2	10	54
55	3	5	1	3	8	5	3	12	0	3	15	6	5	6	4	55
56	3	7	3	3	10	11	3	14	8	3	18	5	5	10	1	56
57	3	9	9	3	13	7	3	17	6	4	1	6	5	14	0	57
58	3	12	4	3	16	6	4	0	6	4	4	10	5	18	2	58
59	3	15	1	3	19	5	4	3	8	4	8	6	6	2	7	59
60	3	18	2	4	2	6	4	7	1	4	12	6	6	7	4	60
61	4	1	5	4	5	8	4	10	10	4	16	11	6	12	4	61
62	4	3	11	4	9	1	4	15	0	5	1	8	6	17	9	62

TABLE XXXV.

Showing the Premium required, for a given number of Payments, to secure £100 at the extinction of a Single Life, according to the Northampton rate of Mortality, at 3 per Cent.

Age.	1 Payment.			5 Payments.			7 Payments.			10 Payments.			15 Payments.			20 Payments.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
14	39	4	1	8	9	2	6	5	9	4	13	5	3	8	10	2	16	10
15	39	16	8	8	12	2	6	8	0	4	15	2	3	10	2	2	18	0
16	40	9	7	8	15	3	6	10	5	4	17	1	3	11	7	2	19	3
17	41	2	3	8	18	5	6	12	10	4	18	11	3	13	0	3	0	6
18	41	14	2	9	1	4	6	15	1	5	0	8	3	14	5	3	1	8
19	42	5	5	9	4	1	6	17	3	5	2	3	3	15	8	3	2	10
20	42	16	0	9	6	8	6	19	2	5	3	10	3	16	10	3	3	9
21	43	5	9	9	9	0	7	1	0	5	5	2	3	17	6	3	4	8
22	43	15	1	9	11	1	7	2	6	5	6	5	3	18	10	3	5	6
23	44	4	7	9	13	3	7	4	2	5	7	8	3	19	10	3	6	5
24	44	14	2	9	15	6	7	5	10	5	9	0	4	0	10	3	7	3
25	45	4	0	9	17	8	7	7	7	5	10	3	4	1	10	3	8	2
26	45	14	0	10	0	0	7	9	4	5	11	8	4	2	11	3	9	1
27	46	4	3	10	2	4	7	11	1	5	13	0	4	4	0	3	10	1
28	46	14	8	10	4	8	7	13	0	5	14	5	4	5	1	3	11	0
29	47	5	3	10	7	2	7	14	10	5	15	11	4	6	3	3	12	1
30	47	16	0	10	9	6	7	16	8	5	17	4	4	7	5	3	13	1
31	48	7	0	10	12	3	7	18	8	5	18	11	4	8	8	3	14	3
32	48	18	3	10	14	9	8	0	8	6	0	5	4	9	11	3	15	4
33	49	9	9	10	17	5	8	2	8	6	2	0	4	11	2	3	16	6
34	50	1	5	11	0	2	8	4	9	6	3	11	4	12	6	3	17	9
35	50	13	4	11	2	10	8	6	10	6	5	4	4	13	11	3	19	0
36	51	5	6	11	5	9	8	9	1	6	7	2	4	15	4	4	0	4
37	51	17	11	11	8	9	8	11	5	6	8	11	4	16	10	4	1	8
38	52	10	8	11	11	8	8	13	9	6	10	10	4	18	4	4	3	1
39	53	3	7	11	14	9	8	16	2	6	12	9	4	19	11	4	4	7
40	53	16	10	11	18	0	8	18	10	6	14	9	5	1	8	4	6	2
41	54	10	2	12	1	3	9	1	4	6	16	10	5	3	4	4	7	9
42	55	3	5	12	4	7	9	3	10	6	18	10	5	5	1	4	9	4
43	55	16	9	12	7	9	9	6	4	7	0	11	5	6	10	4	11	0
44	56	10	4	12	11	1	9	8	11	7	3	0	5	8	8	4	12	9
45	57	4	2	12	14	5	9	11	7	7	5	3	5	10	6	4	14	6
46	57	18	3	12	17	10	9	14	5	7	7	6	5	12	6	4	16	5
47	58	12	8	13	1	5	9	17	4	7	9	11	5	14	7	4	18	5
48	59	7	4	13	5	3	10	0	3	7	12	6	5	16	9	5	0	6
49	60	2	4	13	9	3	10	3	6	7	15	1	5	19	1	5	2	9
50	60	17	4	13	13	2	10	6	8	7	17	9	6	1	5	5	5	0
51	61	12	1	13	17	1	10	9	11	8	0	5	6	3	9	5	7	4
52	62	6	9	14	0	10	10	13	0	8	3	1	6	6	2	5	9	8
53	63	1	9	14	4	10	10	16	2	8	5	9	6	8	7	5	12	2
54	63	16	10	14	8	7	10	19	6	8	8	5	6	11	1	5	14	9
55	64	12	3	14	12	11	11	2	11	8	11	6	6	13	11	5	17	8
56	65	7	10	14	17	3	11	7	6	8	14	7	6	16	9	6	0	8
57	66	3	7	15	1	8	11	10	0	8	17	9	6	19	9	6	3	10
58	66	19	7	15	6	1	11	13	10	9	1	0	7	2	11	6	7	4
59	67	15	10	15	10	9	11	17	9	9	4	5	7	6	4	6	11	0
60	68	12	2	15	15	5	12	1	7	9	8	0	7	9	11	6	14	11
61	69	8	9	16	0	3	12	5	7	9	11	9	7	13	9	6	19	3
62	70	5	6	16	5	2	12	10	0	9	15	9	7	18	0	7	3	10

TABLE XXXVI. 377

Assurances on Two Joint Lives.

...ing the Premium required for securing a Sum payable on the Extinction of First of Two Assigned Lives, according to the Northampton Table, at 3 per ...t.

Younger	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.	Older	Younger	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.
14	3 3 2	.52030	.03159	27	17	3 16 7	.56800	.0????
					22	4 0 4	.57961	.04015
0 5	3 1 1	.51177	.03053		27	4 3 10	.59008	.04193
	3 5 0	.52731	.03249					
				28	13	3 13 11	.55925	.03696
1 5	3 2 8	.51831	.03134		18	3 18 4	.57353	.03917
	3 6 11	.53458	.03345		23	4 1 10	.58407	.04090
					28	4 5 6	.59470	.04274
2 7	3 4 5	.52199	.03219	29	14	3 15 8	.56496	.03782
	3 8 10	.54162	.03442		19	4 0 1	.57881	.04003
	3 6 1	.53147	.03304		24	4 3 4	.58861	.04167
	3 10 8	.54807	.03532		29	4 7 2	.59940	.04459
	3 7 9	.53775	.03398	30	10	3 13 9	.55874	.03688
	3 12 4	.55389	.03616		15	3 17 6	.57083	.03874
					20	4 1 9	.58390	.04087
	3 5 7	.52959	.03279		25	4 4 11	.59322	.04248
	3 9 6	.54389	.03473		30	4 8 11	.60419	.04446
	3 13 11	.55922	.03695					
				31	11	3 15 5	.56412	.03770
	3 6 11	.53475	.03349		16	3 19 5	.57669	.03971
	3 11 2	.54980	.03557		21	4 3 5	.58871	.04163
	3 13 4	.56385	.03765		26	4 6 7	.59792	.04331
					31	4 10 9	.60905	.04537
	3 8 4	.53994	.03418	32	12	3 17 2	.56940	.03858
	3 12 0	.55538	.03638		17	4 1 ▮	.58289	.04070
	3 16 7	.56805	.03830		22	4 5 0	.59338	.04250
					27	4 8 4	.60269	.04418
	3 9 10	.54528	.03493		32	4 12 8	.61401	.04633
	3 14 4	.56072	.03718					
	3 18 0	.57232	.03898	33	13	3 19 0	.57564	.0????
					18	4 3 4	.58869	.04169
	3 11 5	.55077	.03571		23	4 6 8	.59812	.04335
	3 15 11	.56579	.03795		28	4 10 2	.60755	.04509
	3 19 4	.57666	.03967		33	4 14 8	.61905	.04733
	3 9 3	.54319	.03463	34	14	4 1 0	.58165	.04050
	3 13 1	.55642	.03654		19	4 5 4	.59427	.04266
	3 17 5	.57065	.03871		24	4 8 6	.60295	.04423
	4 0 10	.58106	.04040		29	4 12 1	.61250	.04604
					34	4 16 9	.62420	.04838
	3 10 9	.54630	.03536					
	3 14 10	.56234	.03741	35	10	3 19 5	.57693	.03972
	3 19 11	.57521	.03944		15	4 3 1	.58763	.04154
	4 2 4	.58553	.04115		20	4 7 3	.59968	.0????
	3 12 3	.55370	.03614					

Assurances on Two Joint Lives.

Showing the Premium required for securing a Sum payable on the Extinction of the First of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Older	Younger	Annual Premium per Cent. (£. s. d.)	Single Premium for £1.	Annual Premium for £1.
35	25	4 10 4	.60787	.04515
	30	4 14 1	.61753	.04703
	35	4 18 11	.62944	.04947
36	11	4 1 4	.58263	.04067
	16	4 5 4	.59420	.04265
	21	4 9 2	.60484	.04458
	26	4 12 3	.61288	.04611
	31	4 16 2	.62267	.04806
	36	5 1 3	.63479	.05063
37	12	4 3 5	.58873	.04169
	17	4 7 7	.60055	.04379
	22	4 11 1	.60987	.04553
	27	4 14 3	.61798	.04712
	32	4 18 4	.62791	.04915
	37	5 3 8	.64025	.05184
38	13	4 5 7	.59496	.04278
	18	4 9 10	.60672	.04493
	23	4 13 1	.61501	.04653
	28	4 16 4	.62319	.04817
	33	5 0 7	.63525	.05029
	38	5 6 3	.64583	.05311
39	14	4 7 11	.60137	.04394
	19	4 12 2	.61271	.04608
	24	4 15 2	.62025	.04757
	29	4 18 7	.62850	.04928
	34	5 3 0	.63871	.05149
	39	5 8 11	.65153	.05446
40	10	4 6 9	.59832	.04338
	15	4 10 4	.60798	.04517
	20	4 14 6	.61856	.04723
	25	4 17 4	.62560	.04867
	30	5 0 11	.63393	.05044
	35	5 5 6	.64427	.05275
	40	5 11 9	.65736	.05588
41	11	4 0 0	.60445	.04451
	16	4 12 11	.61469	.04646
	21	4 16 9	.62409	.04836
	26	4 19 7	.63096	.04980
	31	5 3 3	.63936	.05164
	36	5 8 1	.64987	.05406

Older	Younger	Annual Premium per Cent. (£. s. d.)	Single Premium for £1.	Annual Premium for £1.
41	41	5 14 8	.66314	.05734
42	12	4 11 5	.61078	.04571
	17	4 15 7	.62128	.04778
	22	4 18 11	.62942	.04947
	27	5 1 11	.63632	.05096
	32	5 5 9	.64481	.05238
	37	5 10 10	.65549	.05542
	42	5 17 8	.66886	.05883
43	13	4 13 11	.61716	.04693
	18	4 18 2	.62760	.04905
	23	5 1 3	.63475	.05062
	28	5 4 4	.64163	.05216
	33	5 8 4	.65027	.05415
	38	5 13 8	.66112	.05682
	43	6 0 9	.67451	.06036
44	14	4 16 7	.62373	.04828
	19	5 0 10	.63376	.05040
	24	5 3 8	.64018	.05182
	29	5 6 10	.64715	.05342
	34	5 11 0	.65582	.05550
	39	5 16 7	.66687	.05831
	44	6 3 11	.68026	.06197
45	10	4 15 11	.62206	.04794
	15	4 19 5	.63048	.04969
	20	5 3 6	.63979	.05173
	25	5 6 2	.64571	.05308
	30	5 9 6	.65272	.05474
	35	5 13 10	.66149	.05692
	40	5 19 9	.67274	.05987
	45	6 7 4	.68612	.06367
46	11	4 18 6	.62848	.04927
	16	5 2 5	.63742	.05120
	21	5 6 2	.64562	.05306
	26	5 8 10	.65135	.05441
	31	5 12 3	.65839	.05614
	36	5 16 10	.66727	.05841
	41	6 3 0	.67865	.06151
	46	6 10 11	.69209	.06547
47	12	5 1 5	.63519	.05071
	17	5 5 7	.64437	.05277

TABLE XXXVI. 919

Assurances on Two Joint Lives.

Showing the Premium required for securing a Sum payable on the Extinction of the First of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Older	Younger	Annual Premium per Cent. £ s. d.	Single Premium for £1.	Annual Premium for £1.
47	22	5 8 10	.65137	.05442
	27	5 11 7	.65,09	.05581
	32	5 15 2	.66418	.05760
	37	6 0 0	.67317	.05999
	42	6 6 5	.68459	.06322
	47	6 14 9	.69518	.06738
48	13	5 4 6	.64209	.05225
	18	5 8 9	.651.0	.05438
	23	5 11 8	.65723	.05585
	28	5 14 7	.66296	.05729
	33	5 18 4	.67005	.05916
	38	6 3 4	.67920	.06167
	43	6 10 0	.69057	.06500
	48	6 18 10	.70440	.06941
49	14	5 7 10	.64918	.05390
	19	5 12 0	.65789	.05601
	24	5 14 9	.66323	.05736
	29	5 17 8	.66894	.05885
	34	6 1 7	.67612	.06080
	39	6 6 11	.68536	.06344
	44	6 13 9	.69667	.06689
	49	7 3 2	.71075	.07157
50	10	5 7 10	.64919	.05390
	15	5 11 3	.65635	.05563
	20	5 15 4	.66439	.05766
	25	5 17 10	.66923	.05893
	30	6 0 11	.67495	.06048
	35	6 5 0	.68217	.06251
	40	6 10 7	.69155	.06530
	45	6 17 9	.70279	.06887
	50	7 7 7	.71705	.07381
51	11	5 11 0	.65584	.05550
	16	5 14 10	.66349	.05743
	21	5 18 6	.67048	.05926
	26	6 1 1	.67512	.06053
	31	6 4 3	.68084	.06213
	36	6 8 6	.68813	.06426
	41	6 14 4	.69758	.06718
	46	7 1 10	.70882	.07090
	51	7 12 1	.72309	.07605
52	12	5 14 5	.66264	.05721

Older	Younger	Annual Premium per Cent. £ s. d.	Single Premium for £1.	Annual Premium for £1.
52	17	5 18 7	.67050	.05927
	22	6 1 9	.67638	.06088
	27	6 4 4	.68099	.06218
	32	6 7 8	.68672	.06385
	37	6 12 2	.69407	.06608
	42	6 18 3	.70352	.06911
	47	7 6 1	.71485	.07302
	52	7 16 8	.72901	.07835
53	13	5 18 1	.66959	.05903
	18	6 2 4	.67759	.06116
	23	6 5 2	.68237	.06257
	28	6 7 10	.68696	.06392
	33	6 11 4	.69270	.06565
	38	6 16 0	.70012	.06800
	43	7 2 3	.70948	.07113
	48	7 10 6	.72098	.07526
	53	8 1 7	.73499	.08078
54	14	6 1 11	.67669	·06096
	19	6 6 2	.68413	.06308
	24	6 8 9	.68845	.06436
	29	6 11 6	.69301	.06575
	34	6 15 1	.69876	.06756
	39	7 0 1	.70626	.07003
	44	7 6 6	.71552	.07326
	49	7 15 3	.72721	.07764
	54	8 6 8	.74163	.08334
55	10	6 2 8	.67802	.06133
	15	6 6 1	.68396	.06303
	20	6 10 2	.69078	.06506
	25	6 12 6	.69463	.06625
	30	6 15 5	.69915	.06769
	35	6 19 2	.70491	.06958
	40	7 4 4	.71251	.07218
	45	7 11 0	.72164	.07551
	50	8 0 3	.73344	.08014
	55	8 12 1	.74714	.08606
56	11	6 6 8	.68502	.06331
	16	6 10 6	.69139	.06525
	21	6 14 2	.69725	.06708
	26	6 16 6	.70089	.06825
	31	6 19 6	.70539	.06974
	36	7 3 5	.71117	.07171

Assurances on Two Joint Lives.

Showing the Premium required for securing a Sum payable on the Extinction of the First of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Older	Younger	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.	Older	Younger	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.
56	41	7 8 11	.71878	.07444	60	50	8 18 2	.75357	.0890
	46	7 15 10	.72786	.07790		55	9 9 0	.76442	.0945
	51	8 5 5	.73959	.08272		60	10 4 8	.77846	.1023
	56	8 17 11	.75330	.08894					
					61	11	7 8 0	.71758	.074
57	12	6 11 0	.69226	.06552		16	7 11 10	.72269	.075
	17	6 15 2	.69882	.06758		21	7 15 6	.72746	.077
	22	6 18 4	.70366	.06916		26	7 17 8	.73020	.078
	27	7 0 9	.70725	.07036		31	8 0 5	.73357	.080
	32	7 3 10	.71172	.07191		36	8 4 0	.73794	.082
	37	7 7 11	.71751	.07398		41	8 9 1	.74380	.084
	42	7 13 7	.72507	.07681		46	8 15 6	.75080	.087
	47	8 0 11	.73417	.08044		51	9 4 6	.75999	.092
	52	8 10 10	.74571	.08541		56	9 15 10	.77076	.097
	57	9 4 0	.75952	.09199		61	10 12 6	.78485	.106
58	13	6 15 8	.69964	.06785	62	12	7 13 9	.72525	.076
	18	7 0 0	.70615	.06999		17	7 17 11	.73053	.078
	23	7 2 9	.71016	.07136		22	8 1 1	.73438	.0805
	28	7 5 2	.71370	.07260		27	8 3 3	.73704	.0816
	33	7 8 5	.71814	.07421		32	8 6 1	.74037	.0830
	38	7 12 9	.72396	.07639		37	8 9 11	.74471	.0849
	43	7 18 7	.73138	.07930		42	8 15 3	.75048	.0876
	48	8 6 3	.74057	.08314		47	9 1 11	.75744	.0909
	53	8 16 6	.75189	.08827		52	9 11 1	.76633	.0955
	58	9 10 6	.76579	.09523		57	10 3 2	.77714	.1015
						62	11 0 10	.79126	.11041
59	14	7 0 8	.70718	.07034					
	19	7 5 0	.71336	.07248	63	13	8 0 1	.73318	.08003
	24	7 7 5	.71675	.07370		18	8 4 5	.73841	.08222
	29	7 10 0	.72023	.07498		23	8 7 1	.74152	.08355
	34	7 13 4	.72465	.07665		28	8 9 5	.74411	.08470
	39	7 17 11	.73050	.07895		33	8 12 4	.74738	.08617
	44	8 3 11	.73777	.08194		38	8 16 4	.75171	.08818
	49	8 12 1	.74706	.08603		43	9 1 9	.75730	.09088
	54	9 2 7	.75813	.09130		48	9 8 11	.76428	.09444
	59	9 17 4	.77211	.09868		53	9 18 4	.77295	.09915
						58	10 11 0	.78368	.10551
60	10	7 2 8	.71012	.07135		63	11 10 0	.79791	.11499
	15	7 6 1	.71486	.07302					
	20	7 10 2	.72048	.07507	64	14	8 6 11	.74125	.08344
	25	7 12 4	.72343	.07619		19	8 11 3	.74619	.08563
	30	7 15 0	.72686	.07751		24	8 13 7	.74874	.08680
	35	7 18 6	.73125	.07925		29	8 15 11	.75127	.08797
	40	8 3 4	.73714	.08168		34	8 19 0	.75448	.08950
	45	8 9 6	.74424	.08476		39	9 3 3	.75880	.09163

TABLE XXXVI. 381

Assurances on Two Joint Lives.

owing the Premium required for securing a Sum payable on the Extinction of the First of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Age Younger	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.
44	9 8 10	.76421	.09440
49	9 16 5	.77122	.09819
54	10 6 0	.77957	.10301
59	10 19 6	.79025	.10974
54	11 19 10	.80458	.11992
10	8 11 2	.74606	.08557
15	8 14 5	.74961	.08720
20	8 18 7	.75407	.08930
25	9 0 8	.75621	.09035
30	9 3 2	.75866	.09156
35	9 6 4	.76181	.09316
40	9 10 10	.76612	.09541
45	9 16 6	.77134	.09825
50	10 4 6	.77831	.10226
55	10 14 5	.78637	.10722
40	11 8 8	.79600	.11434
45	12 10 10	.81152	.12540
.1	8 18 10	.75426	.08940
.6	9 2 7	.75812	.09129
11	9 6 4	.76183	.09317
16	9 8 4	.76378	.09417
11	9 10 10	.76616	.09543
16	9 14 2	.76925	.09710
11	9 18 11	.77350	.09946
16	10 4 10	.77657	.10241
11	10 13 2	.78535	.10657
16	11 3 6	.79325	.11175
11	11 18 7	.80377	.11930
16	13 2 8	.81651	.13135
2	9 7 2	.76265	.09359
17	9 11 5	.76665	.09569
12	9 14 6	.76937	.09737
17	9 16 7	.77144	.09831
12	9 19 3	.77374	.09960
17	10 2 9	.77679	.10136
12	10 7 8	.78092	.10382
17	10 13 10	.78589	.10691
12	11 2 4	.79240	.11117
17	11 13 3	.80017	.11663

Age Older	Younger	Annual Premium per Cent (£ s. d.)	Single Premium for £1.	Annual Premium for £1.
67	62	12 9 3	.81059	.12464
	67	13 15 8	.82554	.13782
68	13	9 16 4	.77115	.09815
	18	10 0 9	.77511	.10038
	23	10 3 5	.77739	.10171
	28	10 5 6	.77918	.10277
	33	10 8 3	.78142	.10412
	38	10 11 11	.78441	.10598
	43	10 17 0	.78836	.10849
	48	11 3 7	.79331	.11179
	53	11 12 3	.79950	.11614
	58	12 3 10	.80715	.12190
	61	13 1 0	.81753	.13050
	68	14 9 9	.83260	.14487
69	14	10 6 3	.77975	.10311
	19	10 10 9	.78347	.10539
	24	10 13 1	.78528	.10652
	29	10 15 3	.78699	.10761
	34	10 18 0	.78916	.10902
	39	11 2 0	.79211	.11098
	44	11 7 1	.79587	.11356
	49	11 14 2	.80080	.11709
	54	12 3 0	.80665	.12152
	59	12 15 2	.81416	.12760
	64	13 13 8	.82449	.13683
	69	15 5 1	.83968	.15255
70	10	10 14 0	.78601	.10698
	15	10 17 1	.78842	.10854
	20	11 1 6	.79176	.11074
	25	11 3 6	.79332	.11173
	30	11 5 8	.79486	.11285
	35	11 8 8	.79695	.11432
	40	11 12 10	.79988	.11642
	45	11 18 1	.80343	.11904
	50	12 5 7	.80829	.12280
	55	12 14 8	.81384	.12733
	60	13 7 6	.82119	.13376
	65	14 7 7	.83157	.14380
	70	16 1 11	.84676	.16094

Assurances on Last Survivors.

Showing the Premium required for securing a Sum payable on the Extinction of the last Survivor of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Older.	Younger.	Annual Premium per Cent. (£. s. d.)			Single Premium for £1.	Annual Premium for £1.	Older.	Younger.	Annual Premium per Cent. (£. s. d.)			Single Premium for £1.	Annual Premium for £1.
14	14	1	0	10	.26351	.01043	27	12	1	3	7	.28850	.01181
								17	1	5	7	.30523	.01279
15	10	1	0	0	.25558	.01000		22	1	7	5	.32005	.01371
	15	1	1	6	.26933	.01073		27	1	9	3	.33415	.01461
16	11	1	0	6	.26084	.01027	28	13	1	4	3	.29401	.01213
	16	1	2	1	.27498	.01104		18	1	6	3	.310-8	.01313
								23	1	8	1	.32552	.01405
17	12	1	1	2	.26621	.01056		28	1	10	0	.33992	.01500
	17	1	2	9	.28061	.01136							
							29	14	1	4	11	.29971	.01246
18	13	1	1	9	.27161	.01086		19	1	7	0	.31650	.01345
	18	1	3	4	.28612	.01167		24	1	8	10	.33110	.01441
								29	1	10	9	.34582	.01539
19	14	1	2	4	.27700	.01116							
	19	1	4	0	.29150	.01198	30	10	1	3	7	.28830	.01180
								15	1	5	7	.30551	.01281
20	10	1	1	3	.26745	.01063		20	1	7	8	.32212	.01364
	15	1	2	11	.28244	.01146		25	1	9	7	.33080	.01479
	20	1	4	7	.29079	.01229		30	1	11	7	.35183	.01581
21	11	1	1	10	.27251	.01091	31	11	1	4	3	.29376	.01211
	16	1	3	6	.28787	.01177		16	1	6	4	.31141	.01316
	21	1	5	2	.30193	.01259		21	1	8	5	.32770	.01419
								25	1	10	4	.34261	.01517
22	12	1	2	5	.27769	.01119		31	1	12	6	.35798	.01623
	17	1	4	2	.29328	.01208							
	22	1	5	10	.30703	.01290	32	12	1	4	11	.29942	.01244
								17	1	7	1	.31736	.01354
23	13	1	3	0	.28298	.01149		22	1	9	1	.33329	.01456
	18	1	4	10	.29865	.01240		27	1	11	2	.34856	.01558
	23	1	6	5	.31223	.01322		32	1	13	4	.36425	.01668
24	14	1	3	7	.28838	.01180	33	13	1	5	7	.30520	.01279
	19	1	5	5	.30460	.01272		18	1	7	10	.32327	.01391
	24	1	7	1	.31753	.01355		23	1	9	10	.33902	.01493
								28	1	12	0	.35462	.01600
25	10	1	2	5	.27785	.01120		33	1	14	4	.37067	.01715
	15	1	4	3	.29391	.01212							
	20	1	6	1	.30937	.01304	34	14	1	6	4	.31111	.01315
	25	1	7	9	.32296	.01389		19	1	8	7	.32913	.01429
								24	1	10	8	.34485	.01533
26	11	1	3	0	.28308	.01150		29	1	12	11	.36081	.01644
	16	1	4	11	.29956	.01245		34	1	15	3	.37721	.01764
	21	1	6	9	.31470	.01337							
	26	1	8	6	.32850	.01424	35	10	1	4	10	.29877	.01241

TABLE XXXVII.   923

Assurances on Last Survivors.

...g the Premium required for securing a Sum payable on the Extinction of ...ast Survivor of Two Assigned Lives, according to the Northampton Table, ...per Cent.

Annual Premium per Cent. (£. s. d.)	Single Premium for £1.	Annual Premium for £1.
1 7 1	.31716	.01352
1 9 4	.33499	.01467
1 11 6	.35081	.01573
1 13 9	.36715	.01689
1 16 4	.38389	.01815
1 5 6	.30444	.01275
1 7 10	.32324	.01391
1 10 2	.34040	.01506
1 12 4	.35689	.01616
1 14 9	.37360	.01737
1 17 4	.39072	.01867
1 6 3	.31033	.01310
1 8 7	.32954	.01431
1 10 11	.34664	.01545
1 13 2	.36310	.01660
1 15 9	.38019	.01786
1 18 5	.39769	.01922
1 6 11	.31633	.01347
1 9 5	.33569	.01471
1 11 9	.35258	.01586
1 14 2	.36944	.01706
1 16 9	.38692	.01837
1 19 7	.40480	.01981
1 7 9	.32248	.01386
1 10 3	.34178	.01512
1 12 7	.35864	.01628
1 15 1	.37591	.01754
1 17 10	.39379	.01891
2 0 10	.41206	.02041
1 6 1	.30913	.01303
1 8 6	.32876	.01426
1 11 1	.34767	.01553
1 13 6	.36483	.01673
1 16 1	.38250	.01804
1 19 0	.40082	.01948
2 2 1	.41948	.02104
1 6 9	.31498	.01339
1 9 4	.33515	.01468
1 11 11	.35386	.01595
1 14 4	.37112	.01718

Age Older	Age Younger	Annual Premium per Cent. (£. s. d.)	Single Premium for £1.	Annual Premium for £1.
41	31	1 17 2	.38922	.01856
	36	2 0 2	.40794	.02006
	41	2 3 5	.42698	.02170
42	12	1 7 6	.32102	.01376
	17	1 10 3	.34155	.01511
	22	1 12 9	.35963	.01636
	27	1 15 4	.37751	.01766
	32	1 18 2	.39604	.01910
	37	2 1 4	.41519	.02068
	42	2 4 9	.43457	.02238
43	13	1 8 4	.32719	.01416
	18	1 11 1	.34787	.01553
	23	1 13 7	.36590	.01680
	28	1 16 4	.38400	.01815
	33	1 19 4	.40296	.01966
	38	2 2 7	.42257	.02131
	43	2 6 2	.44223	.02309
44	14	1 9 2	.33343	.01457
	19	1 11 11	.35409	.01596
	24	1 14 6	.37208	.01726
	29	1 17 4	.39062	.01866
	34	2 0 6	.41004	.02024
	39	2 4 0	.43008	.02193
	44	2 7 9	.45006	.02366
45	10	1 7 3	.31905	.01364
	15	1 10 0	.33992	.01500
	20	1 12 10	.36029	.01640
	25	1 15 5	.37838	.01772
	30	1 18 5	.39737	.01920
	35	2 1 8	.41725	.02085
	40	2 5 4	.43776	.02267
	45	2 9 3	.45803	.02461
46	11	1 8 1	.32502	.01402
	16	1 10 11	.34650	.01544
	21	1 13 8	.36640	.01684
	26	1 16 5	.38480	.01821
	31	1 19 6	.40426	.01976
	36	2 3 0	.42462	.02143
	41	2 6 10	.44554	.02340
	46	2 10 10	.46618	.02543

TABLE XXXVII.

Assurances on Last Survivors.

Showing the Premium required for securing a Sum payable on the Extinction of the Last Survivor of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Older	Younger	Annual Premium per Cent. (£. s. d.)			Single Premium for £1.	Annual Premium for £1.	Older	Younger	Annual Premium per Cent. (£. s. d.)			Single Premium for £1.	Annual Premium for £1.
47	12	1	8	10	.33122	.01442	52	12	1	10	1	.34054	.01505
	17	1	11	9	.35307	.01589		17	1	13	4	.36401	.01666
	22	1	14	7	.37250	.01729		22	1	16	5	.38455	.01819
	27	1	17	5	.39135	.01872		27	1	19	7	.40452	.01978
	32	2	0	8	.41128	.02034		32	2	3	2	.42580	.02156
	37	2	4	4	.43213	.02216		37	2	7	4	.44829	.02366
	42	2	8	4	.45345	.02416		42	2	12	0	.47158	.02599
	47	2	12	7	.47448	.02629		47	2	17	1	.49487	.02853
								52	3	2	7	.51777	.03127
48	13	1	9	8	.33756	.01484							
	18	1	12	8	.35956	.01635	53	13	1	11	0	.34725	.01550
	23	1	15	6	.37871	.01775		18	1	14	4	.37056	.01715
	28	1	18	6	.39862	.01925		23	1	17	4	.39076	.01868
	33	2	1	11	.41845	.02096		28	2	0	8	.41121	.02034
	38	2	5	9	.43978	.02286		33	2	4	6	.43302	.02224
	43	2	9	11	.46147	.02495		38	2	8	10	.45605	.02441
	48	2	14	5	.48294	.02720		43	2	13	9	.47975	.02686
								48	2	19	1	.50355	.02954
49	14	1	10	7	.34403	.01527		53	3	4	10	.52672	.03241
	19	1	13	7	.36596	.01681							
	24	1	16	6	.38502	.01823	54	14	1	11	11	.35380	.01594
	29	1	19	7	.40483	.01981		19	1	15	3	.37700	.01762
	34	2	3	2	.42574	.02159		24	1	18	4	.39705	.01915
	39	2	7	2	.44759	.02359		29	2	1	10	.41803	.02092
	44	2	11	7	.46964	.02579		34	2	5	10	.44038	.02293
	49	2	16	4	.49156	.02815		39	2	10	5	.46397	.02521
								44	2	15	6	.48807	.02776
50	10	1	8	6	.32850	.01425		49	3	1	2	.51234	.03060
	15	1	11	5	.35063	.01572		54	3	7	3	.53583	.03363
	20	1	14	7	.37228	.01727							
	25	1	17	6	.39144	.01873	55	10	1	9	7	.33712	.01481
	30	2	0	9	.41172	.02038		15	1	12	10	.35045	.01641
	35	2	4	6	.43316	.02225		20	1	16	2	.38334	.01910
	40	2	8	9	.45553	.02436		25	1	19	5	.40350	.01969
	45	2	13	4	.47795	.02666		30	2	3	1	.42497	.02153
	50	2	18	4	.50027	.02916		35	2	7	3	.44787	.02352
								40	2	12	1	.47202	.02604
51	11	1	9	3	.33456	.01464		45	2	17	5	.49655	.02572
	16	1	12	5	.35733	.01619		50	3	3	5	.52134	.03172
	21	1	15	6	.37845	.01773		55	3	9	10	.54569	.03490
	26	1	18	6	.39793	.01925							
	31	2	2	0	.41871	.02098	56	11	1	10	5	.34325	.01522
	36	2	5	11	.44086	.02294		16	1	13	10	.36730	.01692
	41	2	10	4	.46352	.02516		21	1	17	2	.38955	.01858
	46	2	15	2	.48635	.02757		26	2	0	6	.41003	.02023
	51	3	0	5	.50898	.03019		31	2	4	4	.43203	.02215

TABLE XXXVII. 925

Assurances on Last Survivors.

g the Premium required for securing a Sum payable on the Extinction of ...st Survivor of Two Assigned Lives, according to the Northampton Table, ...r Cent.

Younger	Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.	Older	Younger	Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.
	£	s.	d.					£	s.	d.		
16	2	8	9	.45549	.02436	60	45	3	1	7	.51393	.03079
11	2	13	10	.48019	.02690		50	3	8	8	.54119	.03435
6	2	19	6	.50518	.02973		55	3	16	6	.56779	.03826
1	3	5	9	.53035	.03289		60	4	5	1	.59373	.04256
6	3	12	6	.55451	.03625							
						61	11	1	11	6	.35117	.01576
	1	11	4	.34963	.01565		16	1	15	2	.37647	.01758
	1	14	10	.37410	.01740		21	1	18	9	.39981	.01939
	1	18	1	.39568	.01906		26	2	2	5	.42120	.02119
	2	1	7	.41667	.02060		31	2	6	7	.44433	.02329
	2	5	7	.43921	.02281		36	2	11	6	.46920	.02574
	2	10	3	.46326	.02514		41	2	17	3	.49564	.02862
	2	15	7	.48844	.02781		46	3	3	10	.52272	.03190
	3	1	7	.51396	.03079		51	3	11	4	.55043	.03566
	3	8	3	.53948	.03412		56	3	19	7	.57753	.03981
	3	15	5	.56408	.03769		61	4	8	10	.60391	.04441
	1	12	3	.35614	.01611	62	12	1	12	5	.35759	.01621
	1	15	10	.38075	.01790		17	1	16	2	.38334	.01810
	1	19	1	.40192	.01956		22	1	19	9	.40591	.01989
	2	2	9	.42341	.02139		27	2	3	6	.42783	.02177
	2	7	0	.44652	.02349		32	2	7	11	.45151	.02397
	2	11	11	.47116	.02594		37	2	13	1	.47701	.02656
	2	17	6	.49679	.02875		42	2	19	2	.50399	.02959
	3	3	10	.52290	.03191		47	3	6	1	.53164	.03306
	3	10	10	.54877	.03542		52	3	14	1	.55976	.03703
	3	18	5	.57381	.03921		57	4	2	11	.56741	.04146
							62	4	12	9	.61424	.04637
	1	13	2	.36278	.01658							
	1	16	10	.38724	.01840	63	13	1	13	4	.36416	.01668
	2	0	2	.40825	.02009		18	1	17	3	.39004	.01862
	2	4	1	.43029	.02202		23	2	0	10	.41211	.02041
	2	8	5	.45396	.02421		28	2	4	9	.43456	.02238
	2	13	7	.47920	.02679		33	2	9	5	.45884	.02469
	2	19	6	.50529	.02974		38	2	14	10	.48496	.02742
	3	6	2	.53200	.03310		43	3	1	3	.51243	.03061
	3	13	7	.55820	.03680		48	3	8	7	.54075	.03429
	4	1	8	.58369	.04083		53	3	17	0	.56927	.03849
							58	4	6	6	.59748	.04323
	1	10	8	.34501	.01533		63	4	17	0	.62481	.04850
	1	14	2	.36956	.01707							
	1	17	10	.39362	.01890	64	14	1	10	4	.37086	.01516
	2	1	3	.41468	.02063		19	1	18	3	.39656	.01913
	2	5	3	.43725	.02263		24	2	1	11	.41841	.02095
	2	9	11	.46151	.02496		29	2	6	0	.44139	.02301
	2	15	5	.48738	.02769		34	2	10	11	.46628	.02544

Assurances on Last Survivors.

Showing the Premium required for securing a Sum payable on the Extinction of the Last Survivor of Two Assigned Lives, according to the Northampton Table, at 3 per Cent.

Age. Older	Age. Younger	Annual Premium per Cent. £	s.	d.	Single Premium for £1.	Annual Premium for £1.	Age. Older	Age. Younger	Annual Premium per Cent. £	s.	d.	Single Premium for £1.	Annual Premium for £1.
64	39	2	16	5	.49305	.02832	67	62	5	3	3	.63929	.05162
	44	3	3	4	.52100	.03158		67	5	17	7	.66871	.05879
	49	3	11	2	.54999	.03560	68	13	1	14	4	.37112	.01718
	54	4	0	1	.57891	.04004		18	1	18	7	.39825	.01925
	59	4	10	3	.60770	.04512		23	2	2	5	.42118	.02119
	64	5	1	7	.63552	.05078		28	2	6	7	.44442	.02430
65	10	1	11	7	.35196	.01581		33	2	11	7	.46973	.02560
	15	1	15	4	.37770	.01767		38	2	17	7	.49720	.02860
	20	1	19	4	.40293	.01965		43	3	4	9	.52630	.03236
	25	2	3	0	.42479	.02151		48	3	13	2	.55665	.03657
	30	2	7	4	.44834	.02367		53	4	3	0	.58765	.04159
	35	2	12	6	.47385	.02623		58	4	14	7	.61894	.04731
	40	2	18	7	.50129	.02927		63	5	8	3	.65012	.05412
	45	3	5	7	.52973	.03280		68	6	3	9	.67998	.06188
	50	3	13	11	.55934	.03696	69	14	1	15	4	.37781	.01768
	55	4	3	5	.58574	.04169		19	1	19	7	.40473	.01950
	60	4	14	3	.61510	.04714		24	2	3	6	.42732	.02173
	65	5	6	6	.64646	.05326		29	2	7	11	.45112	.02394
66	11	1	12	6	.35813	.01625		34	2	13	2	.47705	.02657
	16	1	16	5	.38468	.01821		39	2	19	6	.50519	.02973
	21	2	0	4	.40908	.02016		44	3	7	0	.53479	.03348
	26	2	4	2	.43125	.02208		49	3	15	11	.56586	.03796
	31	2	8	8	.45537	.02435		54	4	6	5	.59729	.04320
	36	2	14	1	.48152	.02705		59	4	18	10	.62905	.04943
	41	3	0	6	.50958	.03026		64	5	13	7	.66107	.05481
	46	3	8	0	.53858	.03399		69	6	10	6	.69133	.06523
	51	3	16	10	.56870	.03840	70	10	1	12	5	.35775	.01622
	56	4	6	11	.59867	.04345		15	1	16	5	.38463	.01820
	61	4	18	7	.62863	.04930		20	2	0	8	.41098	.02033
	66	5	11	10	.65752	.05592		25	2	4	7	.43352	.02229
67	12	1	13	5	.36456	.01671		30	2	9	2	.45768	.02460
	17	1	17	6	.39159	.01874		35	2	14	9	.48445	.02737
	22	2	1	4	.41509	.02067		40	3	1	5	.51327	.03071
	27	2	5	4	.43780	.02268		45	3	9	4	.54338	.03466
	32	2	10	1	.46252	.02506		50	3	13	10	.57510	.03943
	37	2	15	10	.48930	.02790		55	4	10	0	.60701	.04498
	42	3	2	7	.51792	.03129		60	5	3	5	.63964	.05170
	47	3	10	6	.54756	.03524		65	5	19	5	.67215	.05971
	52	3	19	10	.57811	.03991		70	6	17	8	.70270	.06884
	57	4	10	7	.60875	.04531							

TABLE XXXVIII. 927

Survivorship Assurances.

g the Premium required to secure a Sum payable on the death of A, provided
he dies before B, according to the Northampton Table, at 3 per Cent.

Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.	Age of		Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.
£	s	d			A	B	£	s	d		
1	11	7	.20016	.01580	17	12	1	15	0	.28563	.01751
1	11	0	.24582	.01549		17	1	14	5	.27082	.01721
1	10	4	.23418	.01518		22	1	13	10	.25794	.01690
1	9	9	.22191	.01486		27	1	13	2	.24577	.01657
1	9	0	.20843	.01451		32	1	12	5	.23231	.01622
1	8	4	.19461	.01415		37	1	11	9	.21749	.01586
1	7	7	.17783	.01377		42	1	11	0	.20130	.01548
1	6	9	.16097	.01335		47	1	10	2	.18430	.01509
1	5	11	.14369	.01295		52	1	9	5	.16625	.01470
1	5	0	.12566	.01250		57	1	8	7	.14772	.01429
1	3	11	.10635	.01197		62	1	7	8	.12812	.01385
1	2	9	.08591	.01136		67	1	6	9	.10701	.01336
1	1	4	.06495	.01066		72	1	5	7	.08528	.01279
0	19	8	.04824	.00984		77	1	4	3	.06540	.01214
0	18	0	.03325	.00898		82	1	2	7	.04618	.01130
1	13	1	.27738	.01655	18	13	1	15	11	.28906	.01797
1	12	6	.26366	.01625		18	1	15	4	.27404	.01766
1	11	11	.24959	.01594		23	1	14	8	.26164	.01735
1	11	3	.23796	.01563		28	1	14	0	.24905	.01701
1	10	7	.22531	.01529		33	1	13	4	.24516	.01665
1	9	11	.21141	.01494		38	1	12	7	.21984	.01628
1	9	2	.19609	.01457		43	1	11	10	.20328	.01590
1	8	4	.17995	.01418		48	1	11	0	.18572	.01551
1	7	7	.16261	.01378		53	1	10	3	.16738	.01511
1	6	9	.14500	.01336		58	1	9	5	.14833	.01470
1	5	10	.12637	.01291		63	1	8	7	.12817	.01427
1	4	9	.10652	.01239		68	1	7	7	.10650	.01379
1	3	7	.08559	.01178		73	1	6	6	.08449	.01325
1	2	2	.06548	.01108		78	1	5	3	.06467	.01262
1	0	5	.04724	.01022		83	1	3	7	.04546	.01181
1	14	1	.28166	.01703	19	14	1	16	9	.29193	.01839
1	13	6	.26729	.01673		19	1	16	2	.27695	.01808
1	12	10	.25379	.01642		24	1	15	6	.26474	.01776
1	12	2	.24197	.01610		29	1	14	10	.25177	.01741
1	11	6	.22693	.01576		34	1	14	1	.23742	.01704
1	10	10	.21457	.01540		39	1	13	4	.22157	.01666
1	10	1	.19880	.01503		44	1	12	7	.20463	.01627
1	9	3	.18246	.01464		49	1	11	9	.18648	.01588
1	8	6	.16454	.01424		54	1	11	0	.16783	.01548
1	7	8	.14650	.01383		59	1	10	2	.14826	.01507
1	6	9	.12737	.01338		64	1	9	3	.12753	.01464
1	5	9	.10690	.01287			1	8	4	.10531	.01417
1	4	7	.08552	.01228		74	1	7	3	.08316	.01364
1	3	2	.06552	.01160		79	1	6	1	.06311	.01302
1	1	6	.04670	.01074		84	1	4	6	.04499	.01226

TABLE XXXVIII.

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provide he dies before B, according to the Northampton Table, at 3 per Cent.

Age of A	B	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.	Age of A	B	Annual Premium per Cent. (£ s. d.)	Single Premium for £1.	Annual Premium for £1.
20	10	1 18 2	.30838	.01909	23	13	2 0 4	.31470	.02016
	15	1 17 7	.29430	.01879		18	1 19 8	.29910	.01933
	20	1 17 0	.27962	.01848		23	1 19 0	.28617	.01949
	25	1 16 3	.26743	.01814		28	1 18 3	.27288	.01911
	30	1 15 7	.25404	.01778		33	1 17 5	.25801	.01870
	35	1 14 10	.23920	.01740		38	1 16 7	.24147	.01827
	40	1 14 0	.22277	.01701		43	1 15 8	.22354	.01783
	45	1 13 3	.20543	.01661		48	1 14 9	.20446	.01737
	50	1 12 5	.18672	.01620		53	1 13 10	.18450	.01692
	55	1 11 7	.16770	.01580		58	1 12 11	.16377	.01646
	60	1 10 9	.14761	.01538		63	1 11 11	.14167	.01596
	65	1 9 11	.12623	.01495		68	1 11 0	.11843	.01550
	70	1 9 0	.10354	.01448		73	1 9 11	.09465	.01497
	75	1 7 11	.08144	.01397		78	1 8 9	.07323	.01439
	80	1 6 8	.06102	.01335		83	1 7 4	.05230	.01366
21	11	1 18 11	.31084	.01946	24	14	2 1 1	.31659	.02053
	16	1 18 4	.29601	.01915		19	2 0 5	.30165	.02019
	21	1 17 8	.28193	.01883		24	1 19 8	.28833	.01984
	26	1 17 0	.26951	.01848		29	1 18 11	.27458	.01944
	31	1 16 2	.25565	.01810		34	1 18 0	.25916	.01901
	36	1 15 5	.24026	.01771		39	1 17 1	.24202	.01856
	41	1 14 7	.22331	.01730		44	1 16 2	.22361	.01810
	46	1 13 9	.20548	.01689		49	1 15 3	.20383	.01763
	51	1 12 11	.18631	.01647		54	1 14 4	.18348	.01715
	56	1 12 1	.16679	.01605		59	1 13 4	.16211	.01667
	61	1 11 3	.14614	.01562		64	1 12 4	.13954	.01618
	66	1 10 4	.12406	.01517		69	1 11 4	.11544	.01566
	71	1 9 5	.10095	.01469		74	1 10 3	.09150	.015 1
	76	1 8 4	.07914	.01417		79	1 9 0	.06985	.014
	81	1 7 1	.05531	.01354		84	1 7 6	.05024	.0137
22	12	1 19 7	.31278	.01980	25	10	2 2 6	.33295	.0212
	17	1 19 0	.29744	.01949		15	2 1 10	.31846	.0209
	22	1 18 4	.28403	.01915		20	2 1 2	.30322	.0205
	27	1 17 7	.27119	.01879		25	2 0 5	.29054	.0202
	32	1 16 10	.25652	.01840		30	1 19 7	.27631	.0197
	37	1 16 0	.24090	.01799		35	1 18 8	.26031	.0193
	42	1 15 1	.22342	.01756		40	1 17 9	.24250	.0188
	47	1 14 3	.20502	.01713		45	1 16 9	.22363	.0183
	52	1 13 5	.18544	.01669		50	1 15 9	.20318	.0178
	57	1 12 6	.16532	.01625		55	1 14 9	.18237	.0173
	62	1 11 7	.14410	.01580		60	1 13 9	.16035	.0168
	67	1 10 8	.12130	.01533		65	1 12 9	.13701	.0163
	72	1 9 8	.09782	.01483		70	1 11 8	.11235	.0158
	77	1 8 7	.07627	.01429		75	1 10 6	.08842	.0152
	82	1 7 2	.05518	.01360		80	1 9 2	.06637	.0145

TABLE XXXVIII. 920

Survivorship Assurances.

g the Premium required to secure a Sum payable on the death of A, provided
e dies before B, according to the Northampton Table, at 3 per Cent.

Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.	Age of		Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.
£.	s.	d.			A	B	£.	s.	d.		
2	3	3	.33558	.02164	29	14	2	5	11	.34304	.02296
2	2	7	.32028	.02131		19	2	5	3	.32704	.02262
2	1	11	.30571	.02096		24	2	4	6	.31403	.02223
2	1	2	.29277	.02057		29	2	3	7	.29970	.02179
2	0	3	.27803	.02014		34	2	2	7	.28329	.02129
1	19	4	.26145	.01967		39	2	1	6	.26473	.02076
1	18	4	.24302	.01918		44	2	0	5	.24467	.02020
1	17	4	.22366	.01868		49	1	19	3	.22300	.01962
1	16	4	.20258	.01816		54	1	18	1	.20061	.01903
1	15	3	.18117	.01764		59	1	16	10	.17706	.01843
1	14	3	.15851	.01711		64	1	15	8	.15214	.01782
1	13	2	.14435	.01657		69	1	14	4	.12563	.01718
1	12	0	.10917	.01599		74	1	13	0	.09939	.01651
1	10	9	.08551	.01539		79	1	11	7	.07579	.01574
1	9	4	.06297	.01467		84	1	9	11	.05446	.01496
2	4	1	.33807	.02206	30	10	2	7	7	.36038	.02379
2	3	6	.32223	.02173		15	2	6	11	.34552	.02345
2	2	9	.30842	.02137		20	2	6	2	.32987	.02309
2	1	11	.29585	.02096		25	2	5	5	.31692	.02269
2	1	0	.27977	.02051		30	2	4	6	.30210	.02223
2	0	1	.26256	.02002		35	2	3	5	.28506	.02171
1	19	0	.24356	.01951		40	2	2	4	.26578	.02115
1	17	10	.22287	.01893		45	2	1	1	.24516	.02056
1	16	11	.20200	.01944		50	1	19	11	.22274	.01996
1	15	10	.17989	.01790		55	1	18	8	.19982	.01935
1	14	8	.15655	.01734		60	1	17	5	.17550	.01871
1	13	7	.13156	.01677		65	1	16	1	.14968	.01806
1	12	4	.10593	.01616		70	1	14	9	.12250	.01739
1	11	1	.08252	.01553		75	1	13	5	.09620	.01669
1	9	6	.05967	.01476		80	1	11	10	.07212	.01595
2	5	0	.34057	.02251	31	11	2	8	7	.36366	.02430
2	4	4	.32448	.02216		16	2	7	11	.34796	.02395
2	3	7	.31119	.02179		21	2	7	2	.33307	.02359
2	2	9	.29736	.02137		26	2	6	4	.31988	.02317
2	1	9	.28152	.02069		31	2	5	5	.30452	.02269
2	0	9	.26366	.02038		36	2	4	3	.28685	.02214
1	19	8	.24413	.01984		41	2	3	1	.26688	.02155
1	18	7	.22327	.01929		46	2	1	11	.24561	.02094
1	17	6	.20134	.01873		51	2	0	7	.22256	.02031
1	16	4	.17852	.01816		56	1	19	4	.19894	.01967
1	15	2	.15411	.01758		61	1	18	0	.17386	.01901
1	13	11	.12862	.01697		66	1	16	8	.14709	.01832
1	12	8	.10265	.01634		71	1	15	3	.11928	.01761
1	11	4	.07934	.01567		76	1	13	9	.09321	.01688
1	9	8	.05663	.01484		81	1	12	1	.06654	.01604

3 o

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provided he dies before B, according to the Northampton Table, at 3 per Cent.

Age of A	B	Annual Premium per Cent. £	s.	d.	Single Premium for £1.	Annual Premium for £1.	Age of A	B	Annual Premium per Cent. £	s.	d.	Single Premium for £1.	Annual Premium for £1.
32	12	2	9	8	.36683	.02484	35	10	2	13	11	.39157	.02696
	17	2	9	0	.35055	.02448		15	2	13	2	.37643	.02660
	22	2	8	3	.33655	.02411		20	2	12	6	.36048	.0262
	27	2	7	4	.32293	.02367		25	2	11	8	.34755	.0258
	32	2	6	4	.30701	.02317		30	2	10	8	.33248	.0253
	37	2	5	2	.28865	.02259		35	2	9	6	.31472	.0247
	42	2	4	0	.26803	.02198		40	2	8	2	.29411	.0240
	47	2	2	8	.24603	.02134		45	2	6	9	.27169	.023
	52	2	1	4	.22243	.02068		50	2	5	3	.24705	.022
	57	2	0	0	.19801	.02001		55	2	3	9	.22172	.021
	62	1	18	7	.17212	.01931		60	2	2	3	.19474	.021
	67	1	17	2	.14437	.01859		65	2	0	7	.16594	.020
	72	1	15	8	.11599	.01784		70	1	18	11	.13556	.019
	77	1	14	1	.09013	.01706		75	1	17	2	.10622	.018
	82	1	12	4	.06507	.01616		80	1	15	3	.07936	.017
33	13	2	10	10	.37001	.02540	36	11	2	15	3	.39565	.027
	18	2	10	1	.35353	.02503		16	2	14	6	.37963	.027
	23	2	9	4	.34011	.02465		21	2	13	9	.36457	.026
	28	2	8	5	.32663	.02420		26	2	12	11	.35142	.026
	33	2	7	4	.30953	.02367		31	2	11	10	.33582	.025
	38	2	6	2	.29046	.02307		36	2	10	7	.31740	.025
	43	2	4	10	.26926	.02242		41	2	9	3	.29604	.024
	48	2	3	6	.24639	.02175		46	2	7	9	.27289	.023
	53	2	2	1	.22224	.02166		51	2	6	3	.24754	.023
	58	2	0	9	.19698	.02036		56	2	4	8	.22141	.022
	63	1	19	3	.17020	.01962		61	2	3	0	.19351	.021
	68	1	17	9	.14154	.01886		66	2	1	4	.16361	.020
	73	1	16	2	.11268	.01807		71	1	19	6	.13244	.019
	78	1	14	6	.08685	.01725		76	1	17	8	.10328	.018
	83	1	12	7	.06188	.01628		81	1	15	7	.07569	.017
34	14	2	12	0	.37322	.02598	37	12	2	16	7	.39965	.028
	19	2	11	3	.35685	.02562		17	2	15	10	.38307	.027
	24	2	10	5	.34379	.02522		22	2	15	1	.36898	.027
	29	2	9	6	.32921	.02474		27	2	14	2	.35543	.027
	34	2	8	5	.31210	.02419		32	2	13	1	.33926	.026
	39	2	7	1	.29228	.02356		37	2	11	10	.32013	.025
	44	2	5	9	.27047	.02289		42	2	10	5	.29808	.025
	49	2	4	5	.24670	.02219		47	2	8	10	.27410	.024
	54	2	2	11	.22201	.02147		52	2	7	3	.24811	.023
	59	2	1	5	.19589	.02072		57	2	5	7	.22106	.022
	64	1	19	11	.16817	.01995		62	2	3	10	.19223	.021
	69	1	18	4	.13860	.01915		67	2	2	1	.16118	.021
	74	1	16	7	.10939	.01831		72	2	0	2	.12929	.020
	79	1	14	10	.08317	.01743		77	1	18	3	.10028	.019
	84	1	12	11	.05964	.01644		82	1	16	0	.07214	.018

TABLE XXXVIII. 931

Survivorship Assurances.

the Premium required to secure a Sum payable on the death of A, provided e dies before B, according to the Northampton Table, at 3 per Cent.

Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.	Age of		Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.
					A.	B.					
£.	s.	d.					£.	s.	d.		
2	18	1	.40369	.02903	41	11	3	3	8	.43208	.03182
2	17	4	.38689	.02865		16	3	2	11	.41589	.03144
2	16	6	.37354	.02826		21	3	2	1	.40079	.03105
2	15	7	.35953	.02779		26	3	1	3	.38794	.03062
2	14	5	.34279	.02722		31	3	0	2	.37248	.03008
2	13	1	.32291	.02656		36	2	18	10	.35383	.02943
2	11	7	.30022	.02580		41	2	17	4	.33157	.02867
2	10	0	.27529	.02499		46	2	15	7	.30680	.02781
2	8	4	.24867	.02415		51	2	13	9	.27908	.02688
2	6	7	.22066	.02328		56	2	11	10	.25018	.02591
2	4	9	.19077	.02238		61	2	9	10	.21912	.02491
2	2	10	.15864	.02143		66	2	7	9	.18560	.02387
2	0	11	.12615	.02045		71	2	5	7	.15047	.02278
1	18	10	.09708	.01943		76	2	3	4	.11742	.02167
1	16	6	.06896	.01824		81	2	0	11	.08619	.02044
2	19	7	.40777	.02979	42	12	3	5	4	.43676	.03268
2	18	10	.39113	.02942		17	3	4	7	.41998	.03230
2	18	0	.37823	.02901		22	3	3	10	.40600	.03191
2	17	1	.36378	.02852		27	3	2	11	.39276	.03146
2	15	10	.34643	.02793		32	3	1	10	.37678	.03090
2	14	6	.32578	.02723		37	3	0	5	.35741	.03022
2	12	11	.30243	.02644		42	2	18	10	.33444	.02942
2	11	2	.27649	.02559		47	2	17	0	.30875	.02851
2	9	5	.24923	.02471		52	2	15	1	.26030	.02754
2	7	7	.22024	.02380		57	2	13	1	.25033	.02652
2	5	8	.18926	.02285		62	2	10	11	.21817	.02547
2	3	9	.15604	.02186		67	2	8	9	.18330	.02437
2	1	8	.12309	.02083		72	2	6	6	.14729	.02323
1	19	6	.09351	.01975		77	2	4	1	.11435	.02206
1	17	1	.06690	.01855		82	2	1	6	.08244	.02075
3	1	11	.42717	.03097	43	13	3	7	2	.44131	.03357
3	1	2	.41189	.03060		18	3	6	5	.42433	.03319
3	0	5	.39579	.03022		23	3	5	7	.41121	.03279
2	19	7	.38310	.02980		28	3	4	8	.39756	.03232
2	18	7	.36815	.02929		33	3	3	6	.38101	.03173
2	17	4	.35016	.02867		38	3	2	1	.36090	.03102
2	15	11	.32868	.02794		43	3	0	4	.33726	.03018
2	14	3	.30470	.02712		48	2	18	6	.31050	.02923
2	12	6	.27777	.02623		53	2	16	5	.28132	.02820
2	10	7	.24981	.02531		58	2	14	3	.25023	.02713
2	8	8	.21980	.02435		63	2	12	1	.21682	.02602
2	6	9	.18758	.02336		68	2	9	9	.18065	.02486
2	4	8	.15338	.02232		73	2	7	4	.14386	.02366
2	2	6	.12021	.02125		78	2	4	10	.11078	.02241
2	0	3	.08986	.02011		83	2	2	1	.07882	.02102

TABLE XXXVIII.

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A
he dies before B, according to the Northampton Table, at 3 per C

Age of A	B	Annual Premium per Cent. £	s.	d.	Single Premium for £1.	Annual Premium for £1	Age of A	B	Annual Premium per Cent. £	s.	d.	Single Premium for £1.
44	14	3	9	1	.44590	.03452	47	12	3	16	2	.47696
	19	3	8	3	.42913	.03413		17	3	15	4	.46007
	24	3	7	5	.41657	.03372		22	3	14	7	.44635
	29	3	6	5	.40248	.03322		27	3	13	9	.43423
	34	3	5	3	.38535	.03263		32	3	12	7	.41915
	39	3	3	9	.36445	.03186		37	3	11	1	.40007
	44	3	2	0	.34013	.03098		42	3	9	5	.37585
	49	3	0	0	.31225	.02998		47	3	7	5	.34909
	54	2	17	10	.28233	.02891		52	3	5	1	.31845
	59	2	15	7	.25008	.02778		57	3	2	7	.28539
	64	2	13	2	.21537	.02660		62	2	19	11	.24937
	69	2	10	9	.17787	.02538		67	2	17	2	.21001
	74	2	8	3	.14048	.02411		72	2	14	4	.16908
	79	2	5	7	.10671	.02277		77	2	11	4	.13157
	84	2	2	9	.07659	.02139		82	2	8	0	.09452
45	10	3	11	10	.46583	.03590	48	13	3	18	7	.48255
	15	3	11	0	.45053	.03551		18	3	17	9	.46548
	20	3	10	3	.43435	.03512		23	3	16	11	.45277
	25	3	9	5	.42208	.03470		28	3	16	0	.44069
	30	3	8	4	.40755	.03418		33	3	14	10	.42470
	35	3	7	1	.38980	.03354		38	3	13	4	.40091
	40	3	5	6	.36805	.03276		43	3	11	7	.36007
	45	3	3	8	.34306	.03183		48	3	9	5	.35220
	50	3	1	7	.31410	.03078		53	3	7	0	.32077
	55	2	19	4	.28345	.02965		58	3	4	4	.28644
	60	2	16	11	.24948	.02846		63	3	1	6	.24894
	65	2	14	5	.21369	.02722		68	2	18	8	.20604
	70	2	11	10	.17560	.02593		73	2	15	8	.16614
	75	2	9	2	.13724	.02460		78	2	12	7	.12620
	80	2	6	4	.10247	.02315		83	2	9	1	.09114
46	11	3	13	11	.47144	.03696	49	14	4	1	1	.48421
	16	3	13	1	.45516	.03656		19	4	0	3	.47141
	21	3	12	4	.44014	.03617		24	3	19	6	.45940
	26	3	11	6	.42768	.03574		29	3	18	6	.44595
	31	3	10	5	.41278	.03519		34	3	17	3	.42943
	36	3	9	1	.39438	.03452		39	3	15	9	.40687
	41	3	7	5	.37186	.03370		44	3	13	10	.38442
	46	3	5	6	.34605	.03273		49	3	11	7	.35538
	51	3	3	3	.31619	.03163		54	3	9	0	.32317
	56	3	0	10	.28436	.03043		59	3	6	2	.28748
	61	2	18	4	.24964	.02918		64	3	3	3	.21849
	66	2	15	9	.21191	.02787		69	3	0	3	.20602
	71	2	13	1	.17205	.02652		74	2	17	2	.16335
	76	2	10	3	.13433	.02512		79	2	13	11	.12456
	81	2	7	1	.09840	.02356		84	2	10	5	.08933

TABLE XXXVIII.   933

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provided he dies before B, according to the Northampton Table, at 3 per Cent.

Age of A.	B.	Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.	Age of A.	B.	Annual Premium per Cent.			Single Premium for £1.	Annual Premium for £1.
		£.	s.	d					£.	s.	d.		
50	10	4	4	6	.50891	.04225	53	13	4	12	11	.52703	.04646
	15	4	3	9	.49374	.04185		18	4	12	1	.51001	.04604
	20	4	2	11	.47767	.04145		23	4	11	4	.49788	.04565
	25	4	2	1	.46605	.04104		28	4	10	4	.48562	.04518
	30	4	1	1	.45221	.04052		33	4	9	2	.47045	.04459
	35	3	19	9	.43512	.03987		38	4	7	8	.45145	.04395
	40	3	18	2	.41378	.03907		43	4	5	10	.42816	.04292
	45	3	16	2	.38868	.03809		48	4	3	7	.40021	.04178
	50	3	13	10	.35853	.03691		53	4	0	9	.36749	.04039
	55	3	11	1	.32541	.03556		58	3	17	7	.33030	.038,8
	60	3	8	1	.28791	.03403		63	3	14	0	.28843	.03700
	65	3	5	1	.24758	.03253		68	3	10	3	.24169	.03514
	70	3	1	11	.20367	.03094		73	3	6	7	.19389	.03327
	75	2	18	8	.16054	.02934		78	3	2	10	.15032	.03140
	80	2	15	3	.12054	.02763		83	2	18	7	.10745	.02931
51	11	4	7	2	.51514	.04360	54	14	4	16	1	.53300	.04802
	16	4	6	5	.49895	.04319		19	4	15	3	.51630	.04761
	21	4	5	7	.48417	.04280		24	4	14	5	.50498	.04721
	26	4	4	9	.47254	.04236		29	4	13	5	.49240	.04672
	31	4	3	8	.45828	.04182		34	4	12	2	.47675	.04610
	36	4	2	4	.44058	.04115		39	4	10	8	.45703	.04532
	41	4	0	7	.41850	.04031		44	4	8	8	.43318	.04435
	46	3	18	7	.39263	.03927		49	4	6	3	.40404	.04314
	51	3	16	1	.36154	.03803		54	4	3	4	.37052	.04167
	56	3	13	2	.32722	.03660		59	3	19	11	.33179	.03995
	61	3	10	1	.28867	.03503		64	3	16	1	.28804	.03806
	66	3	6	9	.24605	.03339		69	3	12	2	.23951	.03608
	71	3	3	5	.20070	.03172		74	3	8	2	.19043	.03410
	76	3	0	1	.15756	.03004		79	3	4	2	.14569	.03209
	81	2	16	5	.11617	.02822		84	2	19	11	.10490	.02996
52	12	4	10	0	.52108	.04499	55	10	5	0	3	.55391	.05011
	17	4	9	2	.50425	.04457		15	4	19	4	.53896	.04967
	22	4	8	5	.49094	.04419		20	4	18	7	.52307	.04927
	27	4	7	6	.47900	.04373		25	4	17	9	.51226	.04886
	32	4	6	4	.46429	.04317		30	4	16	8	.49934	.04834
	37	4	4	11	.44597	.04246		35	4	15	5	.48319	.04769
	42	4	3	2	.42322	.04158		40	4	13	9	.46270	.04688
	47	4	1	0	.39641	.04049		45	4	11	9	.43830	.04586
	52	3	18	4	.36450	.03918		50	4	9	2	.40804	.04459
	57	3	15	4	.32878	.08766		55	4	6	1	.37357	.04303
	62	3	12	0	.28868	.03599		60	4	2	5	.33323	.04120
	67	3	8	6	.24407	.03424		65	3	18	4	.28734	.03918
	72	3	4	11	.19734	.03247		70	3	14	2	.23693	.03707
	77	3	1	5	.15412	.03071		75	3	9	11	.18710	.03497
	82	2	17	6	.11160	.02875		80	3	5	7	.14077	.03380

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provided he dies before B, according to the Northampton Table, at 3 per Cent.

Age of A. B.	Annual Premium per Cent. £ s. d.	Single Premium for £1.	Annual Premium for £1.	Age of A. B.	Annual Premium per Cent. £ s. d.	Single Premium for £1.	Annual Premium for £1.
56 11	5 3 9	.55094	.05187	59 14	5 15 8	.58152	.057
16	5 2 10	.54189	.05143	19	5 14 10	.56509	.057
21	5 2 1	.53046	.05103	24	5 14 1	.55464	.057
26	5 1 3	.51972	.05061	29	5 13 1	.54317	.056
31	5 0 2	.50645	.05007	34	5 11 10	.52876	.055
36	4 19 9	.48976	.04939	39	5 10 4	.51026	.051
41	4 17 1	.46860	.04853	44	5 8 4	.48770	.054
46	4 14 11	.44350	.04747	49	5 5 10	.45958	.052
51	4 12 3	.41237	.04612	54	5 2 6	.42634	.051
56	4 8 11	.37665	.04447	59	4 18 8	.38605	.049
61	4 5 1	.33462	.04252	64	4 13 11	.33508	.046
66	4 0 6	.28645	.04035	69	4 8 7	.28260	.044
71	3 16 3	.23417	.03811	74	4 3 2	.22523	.041
76	3 11 9	.18411	.03589	79	3 17 9	.17557	.03
81	3 7 1	.13595	.03355	84	3 12 3	.12443	.0361
57 12	5 7 6	.56807	.05376	60 10	6 1 2	.60306	.06
17	5 6 7	.55110	.05330	15	6 0 3	.58849	.0601
22	5 5 10	.53534	.05291	20	5 19 5	.57287	.059
27	5 4 11	.52736	.05247	25	5 18 7	.56308	.059
32	5 3 10	.51371	.05190	30	5 17 7	.55136	.058
37	5 2 5	.49646	.05119	35	5 16 3	.53651	.058
42	5 0 7	.47474	.05029	40	5 14 8	.51734	.057
47	4 18 4	.44879	.04917	45	5 12 7	.49436	.056
52	4 15 6	.41693	.04775	50	5 10 1	.46567	.055
57	4 12 0	.37976	.04600	55	5 6 7	.43120	.053
62	4 7 10	.33596	.04391	60	5 2 4	.38923	.051
67	4 3 2	.28537	.04159	65	4 17 2	.33877	.048
72	3 18 5	.23126	.03920	70	4 11 6	.28091	.045
77	3 13 8	.18090	.03685	75	4 5 8	.22236	.042
82	3 8 8	.13119	.03434	80	3 19 10	.16751	.039
58 13	5 11 6	.57472	.05573	61 11	6 6 1	.61107	.063
18	5 10 7	.55782	.05529	16	6 5 1	.59532	.06
23	5 9 10	.54639	.05491	21	6 4 3	.58132	.06
28	5 8 11	.53518	.05444	26	6 3 5	.57169	.06
33	5 7 6	.52115	.05385	31	6 2 5	.55971	.06
38	5 6 2	.50330	.05310	36	6 1 0	.54443	.06
43	5 4 4	.48115	.05217	41	5 19 4	.52469	.05
48	5 2 0	.45113	.05099	46	5 17 2	.50116	.05
53	4 19 0	.42159	.04949	51	5 14 5	.47132	.05
58	4 15 3	.38290	.04762	56	5 10 10	.43614	.05
63	4 10 9	.33707	.04538	61	5 6 3	.39243	.05
68	4 5 10	.28409	.04291	66	5 0 9	.33929	.05
73	4 0 8	.22825	.04035	71	4 14 7	.27903	.0
78	3 15 8	.17723	.03785	76	4 8 5	.21986	.0
83	3 10 4	.12689	.03517	81	4 2 0	.16249	.0

TABLE XXXVIII. 935

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provided he dies before B, according to the Northampton Table, at 3 per Cent.

Age o. A.	B.	Annual Premium per Cent. £. s. d.	Single Premium for £1.	Annual Premium for £1.	Age of A.	B.	Annual Premium per Cent. £. s. d.	Single Premium for £1.	Annual Premium for £1.
62	12	6 11 3	.61889	.06561	65	10	7 10 8	.65695	.07535
	17	6 10 3	.60241	.06511		15	7 9 7	.64308	.07480
	22	6 9 5	.59028	.06472		20	7 8 8	.62784	.07435
	27	6 8 7	.58050	.06430		25	7 8 0	.61920	.07393
	32	6 7 6	.56825	.06375		30	7 7 0	.60899	.07350
	37	6 6 1	.55249	.06303		35	7 5 9	.59587	.07286
	42	6 4 3	.53231	.06214		40	7 4 1	.57855	.07205
	47	6 2 0	.50806	.06101		45	7 2 1	.55766	.07103
	52	5 19 1	.47770	.05956		50	6 19 6	.53073	.06973
	57	5 15 4	.44118	.05766		55	6 16 1	.49904	.06804
	62	5 10 5	.39563	.05520		60	6 11 6	.45822	.06574
	67	5 4 6	.33964	.05223		65	6 5 5	.40576	.06270
	72	4 17 11	.27697	.04891		70	5 18 0	.34127	.05901
	77	4 11 3	.21708	.04561		75	5 10 0	.27259	.05498
	82	4 4 2	.15743	.04210		80	5 1 5	.20600	.05070
63	13	6 16 10	.62690	.06843	66	11	7 18 0	.66634	.07898
	18	6 15 11	.61023	.06794		16	7 16 10	.65122	.07842
	23	6 15 2	.59985	.06759		21	7 16 0	.63777	.07800
	28	6 14 3	.58971	.06712		26	7 15 3	.62943	.07761
	33	6 13 1	.57718	.06654		31	7 14 3	.61906	.07711
	38	6 11 7	.56094	.06580		36	7 12 11	.60564	.07645
	43	6 9 9	.54048	.06486		41	7 11 2	.58791	.07560
	48	6 7 4	.51534	.06368		46	7 9 1	.56666	.07454
	53	6 4 4	.48452	.06215		51	7 6 4	.53931	.07318
	58	6 0 3	.44661	.06013		56	7 2 9	.50680	.07139
	63	5 15 0	.39895	.05750		61	6 17 11	.46447	.06894
	68	5 8 7	.34017	.05430		66	6 11 4	.40926	.06568
	73	5 1 7	.27521	.05078		71	6 3 6	.34196	.06173
	78	4 14 4	.21411	.04718		76	5 14 10	.27236	.05742
	83	4 6 10	.15327	.04341		81	5 5 6	.20220	.05275
64	14	7 2 11	.63490	.07147	67	12	8 5 10	.67552	.08290
	19	7 2 0	.61866	.07100		17	8 4 8	.65964	.08233
	24	7 1 3	.60920	.07062		22	8 3 11	.64827	.08194
	29	7 0 4	.59913	.07016		27	8 3 1	.63988	.08154
	34	6 19 1	.58631	.06955		32	8 2 1	.62937	.08102
	39	6 17 7	.56953	.06877		37	8 0 8	.61561	.08033
	44	6 15 7	.54884	.06780		42	7 18 11	.59762	.07945
	49	6 13 1	.52274	.06655		47	7 14 8	.57588	.07734
	54	6 9 11	.49153	.06495		52	7 13 10	.54833	.07693
	59	6 5 7	.45217	.06279		57	7 10 1	.51481	.07504
	64	5 19 11	.40229	.05996		62	7 4 10	.47095	.07242
	69	5 13 1	.34058	.05652		67	6 17 10	.41277	.06891
	74	5 5 6	.27353	.05274		72	6 9 4	.34271	.06468
	79	4 17 8	.21606	.04882		77	6 0 2	.27208	.06007
	84	4 9 9	.15133	.04489		82	5 10 0	.19861	.05301

Survivorship Assurances.

Showing the Premium required to secure a Sum payable on the death of A, provided he dies before B, according to the Northampton Table, at 3 per Cent.

Age of A	B	Annual Premium per Cent. £	s	d	Single Premium for £1.	Annual Premium for £1.	Age of A	B	Annual Premium per Cent. £	s	d	Single Premium for £1.	Annual Premium for £1.
68	13	8	14	3	.68471	.08714	71	11	10	5	7	.72541	.10280
	18	8	13	2	.66861	.08659		16	10	4	4	.71163	.10218
	23	8	12	5	.65897	.08622		21	10	3	6	.69894	.10173
	28	8	11	7	.65056	.08581		26	10	2	9	.69201	.10137
	33	8	10	6	.63988	.08526		31	10	1	10	.68346	.10091
	38	8	9	1	.62577	.08454		36	10	0	7	.67233	.10030
	43	8	7	3	.60771	08363		41	9	19	0	.65715	.09949
	48	8	4	11	.58526	.08247		46	9	17	0	.63895	.09848
	53	8	2	0	.55761	.08100		51	9	14	4	.61498	.09718
	58	7	18	0	.52306	.07900		56	9	11	0	.58686	.09550
	63	7	12	5	.47736	.07620		61	9	6	3	.54918	.09311
	68	7	4	10	.41630	.07243		66	8	19	4	.49668	.08965
	73	6	15	10	.34359	.06791		71	8	10	1	.42690	.08504
	78	6	5	11	.27132	.06295		76	7	19	2	.34910	.07959
	83	5	15	1	.21708	.05754		81	7	6	5	.26494	.07322
69	14	9	3	6	.69383	.09175	72	12	10	17	5	.73517	.10670
	19	9	2	5	.67816	.09122		17	10	16	1	.72052	.10606
	24	9	1	9	.66935	.09086		22	10	15	4	.71008	.10766
	29	9	0	10	.66137	.09043		27	10	14	7	.70319	.10729
	34	8	19	9	.65056	.08987		32	10	13	8	.69461	.10682
	39	8	18	3	.63608	.08912		37	10	12	4	.68328	.10613
	44	8	16	4	.61800	.08818		42	10	10	8	.66802	.10534
	49	8	13	11	.59478	.08697		47	10	8	7	.64952	.10428
	54	8	10	11	.56714	.08544		52	10	5	11	.62565	.10295
	59	8	6	7	.53156	.08331		57	10	2	5	.59692	.10119
	64	8	0	7	.48392	.08031		62	9	17	3	.55821	.09864
	69	7	12	7	.41984	.07628		67	9	9	10	.50297	.09493
	74	7	2	11	.34476	.07145		72	9	0	0	.43037	.09000
	79	6	12	2	.26940	.06607		77	8	8	5	.35161	.08420
	84	6	0	11	.21411	.06047		82	7	14	8	.26301	.07733
70	10	9	14	8	.71527	.09735	73	13	11	10	1	.74469	.11504
	15	9	13	6	.70234	.09675		18	11	8	10	.72975	.11442
	20	9	12	6	.68822	.09626		23	11	8	1	.72117	.11405
	25	9	11	10	.68087	.09591		28	11	7	4	.71433	.11367
	30	9	10	11	.67236	.09546		33	11	6	4	.70571	.11318
	35	9	9	9	.66139	.09487		38	11	5	0	.69416	.11251
	40	9	8	2	.64650	.09409		43	11	3	4	.67901	.11165
	45	9	6	3	.62843	.09311		48	11	1	1	.65998	.11055
	50	9	3	9	.60461	.09186		53	10	18	4	.63634	.10917
	55	9	0	6	.57691	.09026		58	10	14	8	.60701	.10732
	60	8	16	0	.54027	.03800		63	10	9	2	.56692	.10459
	65	8	9	7	.49029	.08478		68	10	1	3	.50906	.10062
	70	8	0	11	.42338	.08047		73	9	10	9	.43376	.09536
	75	7	10	8	.34739	.07533		78	8	18	3	.35329	.08913
	80	6	18	11	.26702	.06947		83	8	3	8	.26168	.08185

TABLE XXXIX. 937

 the Value of £100 Policy on a Single Life, at the end of any Number
ars (not exceeding 48) from the date of the Insurance, according to the
ampton Table, at 3 per Cent.

1 Year.	2 Years.	3 Years.	4 Years.	5 Years.	6 Years.
1.0305	2.0934	3.1353	4.1187	5.0400	5.9134
1.0739	2.1267	3.1204	4.0513	4.9337	5.7454
1.0642	2.0637	3.0094	3.9017	4.7222	5.5034
1.0153	1.9664	2.8680	3.6973	4.4870	5.2911
.9669	1.8718	2.7096	3.5073	4.3196	5.1470
.9197	1.7657	2.5711	3.3913	4.2267	5.0777
.8538	1.6667	2.4946	3.3377	4.1966	5.0717
.8200	1.6549	2.5053	3.3716	4.2542	5.1533
.8418	1.6993	2.5727	3.4625	4.3692	5.2923
.8647	1.7455	2.64_9	3.5573	4.4891	5.4389
.8885	1.7937	2.7161	3.6560	4.6141	5.5909
.9133	1.8440	2.7923	3.7590	4.7445	5.7494
.9392	1.8963	2.8719	3.8665	4.8806	5.9148
.9662	1.9511	2.9551	3.9788	5.0228	6.0877
.9945	2.0083	3.0420	4.0962	5.1715	6.2686
1.0240	2.0681	3.1329	4.2190	5.3271	6.4579
1.0549	2.1307	3.2280	4.3476	5.4901	6.6562
1.0873	2.1963	3.3278	4.4825	5.6610	6.8642
1.1212	2.2652	3.4325	4.6240	5.8404	7.0826
1.1569	2.3375	3.5425	4.7727	6.0290	7.3122
1.1944	2.4135	3.6581	4.9291	6.2273	7.5537
1.2339	2.4935	3.7798	5.0937	6.4362	7.7823
1.2754	2.5778	3.9081	5.2673	6.6303	7.9957
1.3192	2.6667	4.0435	5.4240	6.8071	8.1912
1.3655	2.7607	4.1597	5.5613	6.9640	8.3938
1.4145	2.8329	4.2538	5.6760	7.1256	8.6034
1.4387	2.8801	4.3226	5.7930	7.2920	8.8206
1.4624	2.9260	4.4178	5.9388	7.4896	9.0712
1.4853	2.9993	4.5428	6.1166	7.7217	9.3590
1.5368	3.1036	4.7011	6.3304	7.9924	9.6880
1.5912	3.2137	4.8684	6.5563	8.2784	10.0042
1.6487	3.3302	5.0454	6.7953	8.5490	10.2722
1.7096	3.4536	5.2328	7.0160	8.7680	10.5160
1.7743	3.5844	5.3986	7.1811	8.9595	10.7642
1.8429	3.6898	5.5046	7.3150	9.1524	11.0166
1.8816	3.7305	5.5749	7.4467	9.3460	11.2723
1.8843	3·7641	5.6718	7.6074	9.5707	11.5615
1.9159	3.8603	5.8331	7.8341	9.8631	11.9195
1.9824	3.9937	6.0338	8.1024	10.1990	12.3230
2.0520	4.1334	6.2438	8.3828	10.5497	12.7439
2.1250	4.2796	6.4634	8.6758	10.9158	13.1825
2.2014	4.4326	6.6930	8.9817	11.2976	13.6391
2.2815	4.5927	6.9330	9.3009	11.6951	14.1136
2.3653	4.7601	7.1833	9.6335	12.1084	14.6533
2.4529	4.9348	7.4443	9.9792	12.5857	15.2186
2.5444	5.1169	7.7155	10.3876	13.0867	15.8615
2.6397	5.3062	8.0480	10.8176	13.6647	16.5406
2.7387	5.5549	8.3996	11.3240	14.2778	17.2573
2.8955	5.8203	8.8270	11.8640	14.9273	18.0118

TABLE XXXIX.

Showing the Value of £100 Policy on a Single Life, at the end of any Number of Years (not exceeding 48) from the date of the Insurance, according to the Northampton Table, at 3 per Cent.

Age when Assured.	7 Years.	8 Years.	9 Years.	10 Years.	11 Years.	12 Years.
14	6.7167	7.4816	8.2605	9.0537	9.8618	10.6852
15	6.5182	7.3052	8.1068	8.9233	9.7552	10.6026
16	6.2989	7.1092	7.9344	8.7755	9.6322	10.5053
17	6.1100	6.9443	7.7943	8.6601	9.5427	10.4422
18	5.9898	6.8455	7.7233	8.6149	9.5236	10.4501
19	5.9448	6.8280	7.7283	8.6458	9.5813	10.5351
20	5.9631	6.8717	7.7973	8.7420	9.7046	10.6864
21	6.0698	7.0038	7.9561	8.9271	9.9173	10.9273
22	6.2350	7.1951	8.1741	9.1725	10.1910	11.2300
23	6.4072	7.3945	8.4014	9.4285	10.4763	11.5455
24	6.5868	7.6025	8.6384	9.6954	10.7740	11.5749
25	6.7741	7.8194	8.8859	9.9741	11.0849	12.2189
26	6.9697	8.0460	9.1443	10.2654	11.4098	12.5785
27	7.1742	8.2829	9.4146	10.5699	11.7497	12.9548
28	7.3281	8.5308	9.6974	10.8887	12.1055	13.3468
29	7.6120	8.7904	9.9936	11.2227	12.4784	13.7376
30	7.8467	9.0624	10.3042	11.5729	12.8451	14.1197
31	8.0929	9.3479	10.6302	11.9160	13.2041	14.4933
32	8.3514	9.6478	10.9477	12.2500	13.5534	14.8819
33	8.6232	9.9379	11.2550	12.5731	13.9167	15.2865
34	8.8837	10.2162	11.5498	12.9091	14.2949	15.7060
35	9.1309	10.4806	11.8564	13.2589	14.6890	16.1473
36	9.3622	10.7552	12.1753	13.6233	15.1000	16.6064
37	9.6023	11.0407	12.5074	14.0032	15.5290	17.0857
38	9.8514	11.3378	12.8536	14.3998	15.9773	17.5583
39	10.1103	11.6471	13.2147	14.8140	16.1169	17.9918
40	10.3794	11.9695	13.5918	15.2177	16.8152	18.4090
41	10.6845	12.3305	13.9801	15.6009	17.2180	18.8590
42	11.0294	12.7035	14.3184	15.9894	17.6548	19.3445
43	11.3873	13.0570	14.7228	16.4133	18.1285	19.8683
44	11.7000	13.3917	15.1086	16.8506	18.6175	20.4091
45	11.9914	13.7360	15.5061	17.3016	19.1221	20.9673
46	12.2899	14.0897	15.9153	17.7663	19.6424	21.5431
47	12.5954	14.4527	16.3359	18.2447	20.1784	22.1363
48	12.9075	14.8247	16.7679	18.7366	20.7299	22.7468
49	13.2256	15.2053	17.2109	19.2416	21.2964	23.3740
50	13.5792	15.6232	17.6929	19.7871	21.9045	24.0433
51	14.0028	16.1122	18.2466	20.4047	22.5846	24.8261
52	14.4736	16.6497	18.8499	21.0724	23.3577	25.6663
53	14.9640	17.2087	19.4761	21.8077	24.1628	26.5840
54	15.4742	17.7892	20.1695	22.5740	25.0459	27.5427
55	16.0013	18.4364	20.8930	23.4186	25.9696	28.5426
56	16.6004	19.1124	21.6948	24.3032	26.9341	29.5833
57	17.2239	19.8666	22.5359	25.2282	27.9393	30.6631
58	17.9253	20.6592	23.4168	26.1936	28.9834	31.7785
59	18.6642	21.4912	24.3377	27.1977	30.0630	32.9232
60	19.4414	22.3623	25.2969	28.2371	31.1719	34.0968
61	20.2573	23.2715	26.2914	29.3058	32.2997	35.2530
62	21.1109	24.2158	27.3151	30.3934	33.4298	36.3959

TABLE XXXIX. 939

wing the Value of £100 Policy on a Single Life, at the end of any Number f Years (not exceeding 48) from the date of the Insurance, according to the Northampton Table, at 3 per Cent.

when and	13 Years.	14 Years.	15 Years.	16 Years.	17 Years.	18 Years.
14	11.5239	12.3788	13.2501	14.1384	15.0442	15.9679
15	11.4664	12.3468	13.2444	14.1596	15.0929	16.0449
16	11.3953	12.3026	13.2277	14.1712	15.1335	16.1153
17	11.3593	12.2944	13.2480	14.2207	15.2131	16.2258
18	11.3948	12.3582	13.3403	14.3434	15.3665	16.4107
19	11.5079	12.5001	13.5123	14.5454	15.5997	16.6762
20	11.6878	12.7095	13.7522	14.8163	15.9028	17.0122
21	11.9578	13.0094	14.0827	15.1786	16.2975	17.4405
22	12.2902	13.3724	14.4773	15.6055	16.7579	17.9354
23	12.6369	13.7512	14.8890	16.0512	17.2386	18.4294
24	12.9959	14.1466	15.3190	16.5168	17.7179	18.9212
25	13.3770	14.5598	15.7684	16.9802	18.1943	19.4094
26	13.7723	14.9920	16.2150	17.4403	18.6665	19.9165
27	14.1860	15.4206	16.6575	17.8954	19.1572	20.4436
28	14.5955	15.8444	17.0944	18.3685	19.6674	20.9919
29	14.9991	16.2616	17.5485	18.8605	20.1983	21.5626
30	15.3953	16.6955	18.0210	19.3727	20.7511	22.1572
31	15.8074	17.1471	18.5131	19.9062	21.3273	22.7772
32	16.2363	17.6173	19.0258	20.4625	21.9283	23.3973
33	16.6832	18.1076	19.5606	21.0430	22.5287	23.9884
34	17.1491	18.6191	20.1188	21.6219	23.0987	24.5721
35	17.6353	19.1532	20.6744	22.1691	23.6603	25.1736
36	18.1432	19.6835	21.1968	22.7066	24.2389	25.7935
37	18.6459	20.1788	21.7081	23.2601	24.8349	26.4321
38	19.1117	20.6614	22.2342	23.8300	25.4486	27.0898
39	19.5631	21.1576	22.7755	24.4165	26.0804	27.7668
40	20.0264	21.6675	23.3320	25.0193	26.7304	28.4634
41	20.5240	22.2128	23.9253	25.6609	27.4192	29.1995
42	21.0584	22.7963	24.5576	26.3420	28.1487	29.9769
43	21.6322	23.4202	25.2315	27.0654	28.9212	30.7975
44	22.2249	24.0645	25.9271	27.8118	29.7173	31.6422
45	22.8366	24.7293	26.6445	28.5809	30.5369	32.5483
46	23.4675	25.4148	27.3836	29.3724	31.4174	33.4831
47	24.1175	26.1206	28.1440	30.2245	32.3261	34.4867
48	24.7861	26.8460	28.9642	31.1037	33.3033	35.5250
49	25.4725	27.6305	29.8102	32.0511	34.3145	36.5975
50	26.2426	28.4642	30.7480	33.0548	35.3816	37.7245
51	27.0904	29.4181	31.7691	34.1407	36.5286	38.9277
52	28.0394	30.4364	32.8542	35.2887	37.7348	40.1854
53	29.0295	31.4962	33.9800	36.4755	38.9757	41.4713
54	30.0610	32.5969	35.1446	37.6972	40.2453	42.7758
55	31.1335	33.7366	36.3446	38.9478	41.5334	44.0839
56	32.2450	34.9117	37.5736	40.2173	42.8253	45.3727
57	33.3921	36.1161	38.8216	41.4904	44.0973	46.6072
58	34.5685	37.3395	40.0730	42.7431	45.3138	47.7329
59	35.7639	38.5661	41.3033	43.9386	46.4166	48.8920
60	36.9622	39.7709	42.4750	45.0197	47.5576	50.1502
61	38.1379	40.9153	43.5291	46.1358	48.7987	51.6132
62	39.2516	41.9389	44.6190	47.3569	50.2507	53.1478

Showing the Value of £100 Policy on a Single Life, at the end of any Number of Years (not exceeding 48) from the date of the Insurance, according to the Northampton Table, at 3 per Cent.

Age when Assured.	19 Years.	20 Years.	21 Years.	22 Years.	23 Years.	24 Years.
14	16.9101	17.8714	18.8524	19.8536	20.8757	21.9196
15	17.0162	18.0074	19.0190	20.0519	21.1066	22.1839
16	17.1173	18.1399	19.1840	20.2501	21.3391	22.4517
17	17.2594	18.3147	19.3923	20.4930	21.6176	22.7453
18	17.4769	18.5655	19.6775	20.8136	21.9529	23.0943
19	17.7754	18.8982	20.0454	21.1957	22.3482	23.5015
20	18.1454	19.3032	20.4642	21.6273	22.7914	23.9780
21	18.6083	19.7793	20.9524	22.1265	23.3233	24.5434
22	19.1161	20.2989	21.4827	22.6894	23.9195	25.1789
23	19.6222	20.8161	22.0330	23.2736	24.5387	25.8258
24	20.1254	21.3530	22.6044	23.8805	25.1818	26.5093
25	20.6479	21.9106	23.1981	24.5111	25.8505	27.2170
26	21.1908	22.4902	23.8153	25.1670	26.5461	27.9282
27	21.7553	23.0930	24.4575	25.8497	27.2449	28.6153
28	22.3427	23.7205	25.1262	26.5351	27.9194	29.3004
29	22.9543	24.3742	25.7972	27.1953	28.5902	30.0058
30	23.5917	25.0295	26.4421	27.8514	29.2817	30.7328
31	24.2302	25.6579	27.0822	28.5277	29.9944	31.4519
32	24.8407	26.2807	27.7421	29.2248	30.7288	32.2337
33	25.4448	25.9227	28.4223	29.9133	31.4855	33.0466
34	26.0674	27.5845	29.1233	30.6836	32.2650	33.8671
35	26.7091	28.2665	29.8457	31.4462	33.0677	34.7094
36	27.3704	28.9692	30.5898	32.2315	33.8933	35.5758
37	28.0516	29.6931	31.3560	33.0397	34.7435	36.4661
38	28.7532	30.4383	32.1446	33.8711	35.6167	37.3800
39	29.4753	31.2052	32.9556	34.7254	36.5131	38.3513
40	30.2181	31.9936	33.7888	35.6022	37.4668	39.3503
41	31.0009	32.8323	34.6621	36.5540	38.4650	40.4295
42	31.8253	33.6925	35.6124	37.5517	39.5454	41.5592
43	32.6927	34.6416	36.6102	38.6340	40.6781	42.7399
44	33.6215	35.6208	37.6762	39.7522	41.8462	43.9547
45	34.5798	36.6684	38.7780	40.9059	43.0485	45.2012
46	35.6067	37.7517	39.9154	42.0938	44.2826	46.4755
47	36.6690	38.8701	41.0865	43.3134	45.5445	47.7715
48	37.7659	40.0224	42.2895	44.5609	46.8281	49.0800
49	38.8963	41.2060	43.5200	45.8298	48.1240	50.3870
50	40.0785	42.4369	44.7910	47.1291	49.4355	51.6885
51	41.3314	43.7310	46.1136	48.4644	50.7607	52.9714
52	42.6316	45.0612	47.4578	49.7989	52.0527	54.1733
53	43.9500	46.3951	48.7836	51.0830	53.2470	55.4051
54	45.2721	47.7106	50.0582	52.2675	54.4708	56.7217
55	46.5753	48.9739	51.2312	53.4824	55.7821	58.2127
56	47.8254	50.1334	52.4353	54.7867	57.2721	59.7603
57	48.9692	51.3248	53.7310	56.2745	58.6209	61.2509
58	50.1456	52.6103	55.2152	57.8233	60.3122	62.6933
59	51.4186	54.0891	56.7627	59.3142	61.7557	63.9899
60	52.8905	55.6339	58.2520	60.7572	63.0498	64.7992
61	54.4310	57.1201	59.6932	62.0479	63.8448	65.4992
62	55.9126	58.5582	60.9793	62.8267	64.5277	66.0789

TABLE XXXIX. 941

wing the Value of £100 Policy on a Single Life, at the end of any Number of [ears (not exceeding 48) from the date of the Insurance, according to the Southampton Table, at 3 per Cent.

e when used	25 Years.	26 Years.	27 Years.	28 Years.	29 Years.	30 Years.
14	22.9858	24.0751	25.1675	26.2618	27.3571	28.4735
15	23.2846	24.3883	25.4941	26.6007	27.7287	28.8787
16	23.5674	24.6852	25.8039	26.9441	28.1066	29.2919
17	23.8750	25.0057	26.1582	27.3333	28.5313	29.7532
18	24.2366	25.4009	26.5880	27.7983	29.0327	30.2919
19	24.6772	25.8757	27.0978	28.3442	29.6155	30.9127
20	25.1876	26.4211	27.6790	28.9622	30.2714	31.5834
21	25.7875	27.0563	28.3505	29.6709	30.9943	32.2945
22	26.4532	27.7581	29.0895	30.4237	31.7347	33.0426
23	27.1448	28.4874	29.8330	31.1551	32.4742	33.8128
24	27.8637	29.2210	30.5507	31.8852	33.2355	34.6055
25	28.5865	29.9321	31.2745	32.6369	34.0192	35.4213
26	29.2863	30.6411	32.0160	33.4111	34.8261	36.2608
27	29.9835	31.3715	32.7797	34.2081	35.6565	37.1244
28	30.7019	32.1239	33.5663	35.0287	36.5110	38.0127
29	31.4421	32.8989	34.3761	35.8733	37.3901	38.9258
30	32.2047	33.6972	35.2098	36.7423	38.2939	39.8640
31	32.9903	34.5191	36.0079	37.6361	39.2228	40.8272
32	33.7993	35.3651	36.9705	38.5547	40.1767	41.8152
33	34.6322	36.2356	37.8580	39.4984	41.1554	42.8592
34	35.4892	37.1306	38.7902	40.4666	42.1904	43.9316
35	36.3707	38.0503	39.7470	41.4915	43.2538	45.0655
36	37.2764	38.9942	40.7606	42.5449	44.3792	46.2320
37	38.2061	39.9953	41.8027	43.6607	45.5374	47.4303
38	39.1932	41.0246	42.9075	44.8093	46.7275	48.6590
39	40.2082	42.1171	44.0452	45.9900	47.9483	49.9158
40	41.2866	43.2423	45.2151	47.2014	49.1972	51.1967
41	42.4138	44.4153	46.4307	48.4456	50.4843	52.5093
42	43.5904	45.6357	47.6906	49.7494	51.8045	53.8456
43	44.8160	46.9019	48.9918	51.0778	53.1497	55.1934
44	46.0732	48.1956	50.3142	52.4184	54.4941	56.5217
45	47.3580	49.5108	51.6491	53.7583	55.8186	57.8023
46	48.6643	50.8385	52.9831	55.0780	57.0949	58.9929
47	49.9934	52.1653	54.2966	56.3186	58.2796	60.2054
48	51.3013	53.4711	55.5601	57.5260	59.4866	61.4895
49	52.5975	54.7258	56.7286	58.7260	60.7665	62.9230
50	53.8575	55.8987	57.9345	60.0141	62.2121	64.4126
51	55.0518	57.1266	59.2462	61.4864	63.7292	65.8696
52	56.2891	58.4501	60.7341	63.0207	65.2629	67.2910
53	57.6098	59.9399	62.2728	64.4992	66.6295	68.5790
54	59.1007	61.4824	63.7554	65.9304	67.9207	69.4395
55	60.6462	62.9685	65.1907	67.2243	68.7760	70.2048
56	62.1350	64.4071	66.4865	68.0732	69.5342	70.8664
57	63.5761	65.7040	67.3278	68.8229	70.1862	71.4733
58	64.8732	66.5363	68.0676	69.4640	70.7823	71.9038
59	65.6948	67.2646	68.6961	70.0476	71.1973	72.7534
60	66.4100	67.8788	69.2656	70.4454	72.0421	74.0684
61	67.0079	68.4328	69.6440	71.2841	73.3653	76.1644
62	67.5434	68.7893	70.4755	72.6153	75.4933	78.5384

Showing the Value of £100 Policy on a Single Life, at the end of any Number of Years (not exceeding 48) from the date of the Insurance, according to the Northampton Table, at 3 per Cent.

Age when Assured.	31 Years.	32 Years.	33 Years.	34 Years.	35 Years.	36 Years.
14	29.6116	30.7721	31.9557	33.1630	34.3497	35.6292
15	30.0513	31.2472	32.4670	33.7116	34.9589	36.1844
16	30.5008	31.7339	32.9920	34.2528	35.4916	36.7276
17	30.9996	32.2712	33.5456	34.7977	36.0470	37.3147
18	31.5765	32.8640	34.1290	35.3910	36.6718	37.9713
19	32.2126	33.4899	34.7642	36.0574	37.3695	38.7004
20	32.8725	34.1586	35.4639	36.7682	38.1314	39.4934
21	33.5917	34.9081	36.2438	37.5986	38.9723	40.3646
22	34.3700	35.7167	37.0827	38.4678	39.8716	41.2938
23	35.1709	36.5485	37.9454	39.3611	40.7954	42.2476
24	35.9951	37.4041	38.8322	40.2790	41.7438	43.2261
25	36.8429	38.2838	39.7436	41.2216	42.7171	44.2292
26	37.7150	39.1882	40.6798	42.1891	43.7152	45.2567
27	38.6116	40.1174	41.6410	43.1815	44.7377	46.3377
28	39.5332	41.0717	42.6272	44.1985	45.8142	47.4463
29	40.4798	42.0509	43.6380	45.2699	46.9184	48.6131
30	41.4514	43.0549	44.7037	46.3692	48.0813	49.6109
31	42.4478	44.1142	45.7975	47.5279	49.2758	51.0368
32	43.4999	45.2016	46.9511	48.7182	50.5006	52.2953
33	44.5503	46.3496	48.1366	49.9393	51.7544	53.5780
34	45.7216	47.5297	49.3533	51.1897	53.0347	54.5831
35	46.8954	48.7411	50.5996	52.4669	54.3377	56.2051
36	48.1008	49.9825	51.8731	53.7673	55.6580	57.5359
37	49.3363	51.2514	53.1700	55.0852	56.9874	58.8637
38	50.5997	52.5440	54.4847	56.4123	58.3138	60.1711
39	51.8870	53.8516	55.8089	57.7367	59.6197	61.4327
40	53.1925	55.1748	57.1303	59.0404	60.8793	62.6099
41	54.5204	56.5015	58.4425	60.3083	62.0641	63.8153
42	55.8590	57.8257	59.7192	61.5011	63.2781	65.0937
43	57.1898	59.1119	60.9207	62.7246	64.5673	66.5151
44	58.4737	60.3107	62.1428	64.0144	65.9925	67.9729
45	59.6690	61.5307	63.4325	65.4426	67.4550	69.3756
46	60.8858	62.8195	64.8633	66.9094	68.8622	70.7307
47	62.1728	64.2521	66.3339	68.3206	70.2216	71.9612
48	63.6064	65.7258	67.7483	69.6837	71.4548	72.8063
49	65.0822	67.1428	69.1145	70.9188	72.2957	73.5634
50	66.5127	68.5222	70.3612	71.7644	73.0564	74.2347
51	67.9177	69.7919	71.2222	72.5390	73.7399	74.8736
52	69.2019	70.6600	72.0026	73.2269	74.3828	75.3661
53	70.0666	71.4364	72.6854	73.8647	74.8679	76.2257
54	70.8380	72.1132	73.3171	74.3414	75.7276	77.4865
55	71.5078	72.7378	73.7843	75.2007	76.9980	79.4151
56	72.1242	73.1942	74.6424	76.4802	78.9520	81.5674
57	72.5684	74.0504	75.9311	78.4506	81.1371	84.1626
58	73.4218	75.3480	77.9388	80.6801	83.7789	86.4492
59	74.7282	77.3841	80.1943	83.3710	86.1085	88.7626
60	76.7936	79.6772	82.9369	85.7458	88.4692	90.7213
61	79.1262	82.4742	85.3593	88.1566	90.4697	
62	81.9807	84.9470	87.8231	90.2014		

TABLE XXXIX. 943

ving the Value of £100 Policy on a Single Life, at the end of any Number of
am (not exceeding 48) from the date of the Insurance, according to the
Northampton Table, at 3 per Cent.

	37 Years.	38 Years.	39 Years.	40 Years.	41 Years.	42 Years.
14	36.8421	38.0521	39.2802	40.5261	41.7899	43.0714
15	37.4071	38.6479	39.9069	41.1838	42.4786	43.7909
16	37.9819	39.2545	40.5453	41.6542	43.1807	44.5246
17	38.6011	39.9057	41.2287	42.5695	43.9279	45.3033
18	39.2894	40.6259	41.9805	43.3528	44.7423	46.1483
19	40.0499	41.4176	42.8032	44.2062	45.6258	47.0611
20	40.8738	42.2723	43.6863	45.1210	46.5697	48.0330
21	41.7752	43.2033	44.6485	46.1096	47.5553	49.1032
22	42.7938	44.1908	45.6641	47.1522	48.6824	50.2261
23	43.7170	45.2027	46.7035	48.2467	49.8055	51.4080
24	44.7248	46.2386	47.7953	49.3677	50.9542	52.6169
25	45.7567	47.3273	48.9138	50.5447	52.1921	53.8538
26	46.8418	48.4429	50.1889	51.7514	53.4284	55.1170
27	47.9541	49.6157	51.2940	52.9869	54.6914	56.4041
28	49.1214	50.8188	52.5282	54.2494	55.9787	57.7113
29	50.3248	52.0513	53.7698	55.5306	57.2866	59.0314
30	51.5553	53.3119	55.0766	.6446	58.6093	60.3624
31	52.8140	54.5976	56.3845	58.1682	59.9398	61.6874
32	54.0985	55.9051	57.7094	59.4995	61.2662	62.9921
33	55.4051	57.2288	59.0402	60.8270	62.5724	64.2528
34	56.7282	58.5608	60.3685	62.1343	63.8341	65.4343
35	58.0590	59.8894	61.6766	63.3972	65.0164	66.6313
36	59.3894	61.1978	62.9400	64.5794	66.2144	67.8847
37	60.6966	62.4612	64.1218	65.7779	67.4698	69.2580
38	61.9594	63.6442	65.3204	67.0349	68.8170	70.6612
39	63.1388	64.8403	66.5785	68.4157	70.2550	72.0103
40	64.3359	66.0990	67.9625	69.8262	71.6047	73.3124
41	65.6041	67.4949	69.3878	71.1943	72.9228	74.5817
42	67.0124	68.9345	70.7668	72.5210	74.1263	75.3513
43	68.4651	70.3260	72.1067	73.7362	74.9797	76.1246
44	69.8659	71.6713	73.3263	74.5892	75.7519	76.8123
45	71.2132	72.6950	74.1783	75.3599	76.4374	77.4546
46	72.4406	73.7454	74.9468	76.0424	77.0767	77.9366
47	73.2887	74.6110	75.6257	76.6779	77.5732	78.7848
48	74.0506	75.1854	76.2567	77.1681	78.4016	79.9670
	74.7195	75.8100	76.7394	77.9061	79.5909	81.7358
	75.3470	76.2934	77.5742	79.1995	81.3855	83.6943
	75.8391	77.1435	78.8010	81.0280	83.3854	86.0503
	76.6970	78.3859	80.6574	83.0609	85.7778	88.1191
	77.9498	80.2662	82.7183	85.4902	87.8789	90.1947
	79.8528	82.3562	85.1862	87.6248	89.9693	91.9445
	81.9732	84.8646	87.3562	89.7719	91.7696	
	84.5239	87.0715	89.5417	91.5843		
	86.7697	89.2975	91.3878			
	89.0382	91.1793				
	90.9574					

Showing the Value of £100 Policy on a Single Life, at the end of any Nu
Years (not exceeding 48) from the date of the Insurance, according
Northampton Table, at 3 per Cent.

Age when Assured.	43 Years.	44 Years.	45 Years.	46 Years.	47 Years.	48
14	44.3702	45.6860	47.0182	48.3663	49.7293	51.
15	45.1204	46.4666	47.8287	49.2053	50.5970	52.
16	45.8854	47.2623	48.6544	50.0606	51.5066	52.
17	46.6950	48.1020	49.5234	50.9850	52.4513	53.
18	47.5698	49.0057	50.4822	51.9737	53.5070	55.
19	48.5110	50.0018	51.5078	53.0559	54.6196	56.
20	49.5377	51.0576	52.6202	54.1984	55.7903	57.
21	50.6362	52.2122	53.8040	55.4096	57.0263	58.
22	51.8171	53.4221	55.0409	56.6711	58.3089	59.
23	53.0266	54.6592	56.3032	57.9549	59.6097	61.
24	54.2638	55.9_20	57.5882	59.2574	60.9236	62.
25	55.5269	57.2079	58.8922	60.5733	62.2430	63.
26	56.8135	58.5133	60.2099	61.8950	63.5573	65.
27	58.1199	59.8326	61.5337	63.2118	64.8509	66.
28	59.4409	61.1585	62.8529	64.5080	66.1015	67.
29	60.7683	62.4797	64.1515	65.7610	67.2756	68.
30	62.0915	63.7806	65.4067	66.9371	68.4632	70.
31	63.3944	65.0379	66.5846	68.1270	69.7029	71.
32	64.6536	66.2173	67.7767	69.3697	71.0534	72.
33	65.8342	67.4113	69.0224	70.7252	72.4300	74.
34	67.0298	68.6598	70.3825	72.1073	73.7533	75.
35	68.2809	70.0245	71.7701	73.4360	75.0301	76.
36	69.6500	71.4176	73.1042	74.7181	76.1951	77.
37	71.0482	72.7567	74.3915	75.8876	77.0292	78.
38	72.3925	74.0492	75.5652	76.7221	77.7873	78.
39	73.6899	75.2269	76.3993	77.4798	78.4646	79.
40	74.3715	76.0612	77.1566	78.1556	79.0986	79.
41	75.7118	76.8232	77.8367	78.7935	79.6076	80.
42	76.4792	77.5078	78.4788	79.3049	80.4230	81.
43	77.1687	78.1543	78.9929	80.1278	81.5681	83.
44	77.8134	78.6650	79.8177	81.2804	83.2477	85.
45	78.3201	79.4913	80.9777	82.9769	85.0921	87.
46	79.1475	80.6588	82.6915	84.8422	87.2734	89.
47	80.3224	82.3904	84.5785	87.0520	89.1835	91.
48	82.0723	84.3000	86.8182	88.9882	91.0921	92.
49	84.0052	86.5707	88.7814	90.9248	92.6973	
50	86.3131	88.5662	90.7508	92.5573		
51	88.3467	90.5732	92.4144			
52	90.3891	92.2062				
53	92.1098					

TABLE XL.
Carlisle Rate of Mortality for Two Joint Lives.
Equal Ages.

Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m,\,m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\,m_1}$	Curtate Expectation. $\dfrac{N_{m,\,m_1}}{D_{m,\,m_1}}$
100000000	28411479	2017569843	20.13
71588521	11075680	1945981322	27.18
60512841	7601765	1865468481	31.16
52911076	3939072	1832557405	34.63
48972004	2772795	1783585401	36.42
46199209	1630233	1737386192	37.61
44568976	1088140	1692817216	37.98
43480836	781540	1649336380	37.93
42719296	560247	1606617084	37.63
42159049	427449	1564458035	37.11
41731600	373839	1522726435	36.49
41357761	397761	1481368674	35.82
40960000	408576	1440408674	35.17
40551424	419199	1399857250	34.52
40132225	442225	1359725025	33.88
39690000	489879	1320035025	33.28
39200121	524160	1280834904	32.67
38675961	532985	1242158943	32.12
38142976	529287	1204015967	31.57
37613689	525589	1166402278	31.01
37088100	521891	1129314178	30.45
36566209	506184	1092747969	29.88
36060025	502656	1056687944	29.30
35557369	499128	1021130575	28.72
35058241	495600	986072334	28.13
34562641	503745	951509693	27.53
34054896	500047	917450797	26.94
33558849	519345	883891948	26.34
33039504	572300	850852444	25.75
32467204	635040	818385240	25.21
31832164	639939	786553076	24.71
31192225	633441	755360851	24.22
30558784	616000	724802067	23.72
29942784	598895	694859283	23.21
29343689	592845	665515394	22.68
28751044	586795	636764350	22.15
28164249	591248	608600101	21.61
27573001	595365	581027100	21.07
26977636	599140	554049464	20.54
26378496	622871	527670968	20.00
25755625	665544	501915343	19.49
25090081	686481	476825262	19.00
24403600	696439	452421662	18.54
23707161	686357	428714501	18.08
23020804	676275	405693697	17.62
22344529	656880	383349168	17.16
21687649	637905	361661519	16.68
21049744	610303	340611775	16.18
20439441	565677	320172334	15.76
19873764	540155	300298570	15.11
19333609	515365	280964961	14.53
18818244	534069	262146717	13.93

The curtate expectation is the average number of years which the two lives jointly complete, exclusive of the fraction which they jointly enjoy of the year in which the joint existence fails.

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.
Equal Ages.

Ages.	Number of Living. $\frac{l_m . l_{m1}}{D_{m. m_1}}$	Decrement. $l_m . l_{m1} - l_{m+1} . l_{m1+1}$	Sum of Living at Higher Ages. $N_{m. m_1}$	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
52 & 52	18284176	551665	243862541	13.34
53.. 53	17732521	568072	226130020	12.75
54.. 54	17164449	575120	208965371	12.17
55.. 55	16589329	589329	192376242	11.60
56.. 56	16000000	602224	176376242	11.02
57.. 57	15397776	636812	160978466	10.45
58.. 58	14760964	705963	146217502	9.91
59.. 59	14055001	783552	132162501	9.40
60.. 60	13271449	874008	118891052	8.96
61.. 61	12397441	871416	106493611	8.59
62.. 62	11526025	846201	94967586	8.24
63.. 63	10679824	801375	84287762	7.90
64.. 64	9878449	770125	74409313	7.53
65.. 65	9108324	733088	65300989	7.17
66.. 66	8375236	696795	56925753	6.79
67.. 67	7678441	666537	49247312	6.41
68.. 68	7011904	636279	42235408	6.02
69.. 69	6375625	610824	35859783	5.62
70.. 70	5764801	580072	30094982	5.22
71.. 71	5184729	592280	24910253	4.80
72.. 72	4592449	604440	20317804	4.42
73.. 73	3988009	598728	16329795	4.09
74.. 74	3389281	583656	12940514	3.82
75.. 75	2805625	510400	10134889	3.61
76.. 76	2295225	448344	7839664	3.42
77.. 77	1846881	375512	5992783	3.25
78.. 78	1471369	302808	4521414	3.07
79.. 79	1168561	260352	3352853	2.87
80.. 80	908209	207640	2444644	2.69
81.. 81	700569	174944	1744075	2.49
82.. 82	525625	137496	1218450	2.32
83.. 83	388129	108258	830321	2.14
84.. 84	279841	81816	550480	1.97
85.. 85	198025	63336	352455	1.78
86.. 86	134689	47073	217766	1.62
87.. 87	87616	33792	130150	1.48
88.. 88	53824	21063	76326	1.42
89.. 89	32761	12597	43565	1.33
90.. 90	20164	9139	23401	1.16
91.. 91	11025	5400	12376	1.12
92.. 92	5625	2709	6751	1.20
93.. 93	2916	1316	3835	1.32
94.. 94	1600	700	2235	1.40
95.. 95	900	371	1335	1.48
96.. 96	529	205	806	1.52
97.. 97	324	128	482	1.49
98.. 98	196	75	286	1.46
99.. 99	121	40	165	1.37
100..100	81	32	84	1.04
101..101	49	24	35	.71
102..102	25	16	10	.40
103..103	9		1	.11

TABLE XL. 947

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age One Year.

Number of Living. $l_m \, l_{m_1}$ $D_{m, \, m_1}$	Decrement. $l_m \, l_{m_1} - l_{m+1} \, l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m, \, m_1}$	Curtate Expectation. $\dfrac{N_{m, \, m_1}}{D_{m, \, m_1}}$
84610000	18791881	1981037433	23.41
65818119	9233673	1915219304	29.10
56584446	5680994	1858634858	32.85
50903452	3338046	1807731406	35.51
47565406	2188634	1760166000	37.01
45376772	1355228	1714789228	37.79
44021544	923160	1670767684	37.95
43098384	917	1627669300	37.77
42438248	493468	1585231052	37.35
41944780	400520	1543286272	36.79
41544260	385860	1501742012	36.15
41158400	403200	1460583612	35.49
40755200	413920	1419828412	34.84
40341280	430780	1379487132	34.20
39910500	466200	1339576632	33.56
39444300	507141	1300132332	32.96
38937159	528615	1261195173	32.39
38408544	531136	1222786629	31.84
37877408	527438	1184909221	31.28
37349970	523740	1147559251	30.72
36826230	513995	1110733021	30.16
36312235	504420	1074420786	29.59
35507815	500892	1038612971	29.01
35306923	497364	1003306048	28.42
34809559	499715	968496489	27.82
34309844	501896	934186645	27.23
33807948	509784	900378697	26.63
33298164	546060	867080533	26.04
32752104	603988	833432429	25.47
32148116	637546	802180313	24.95
31510570	636690	770669743	24.46
30873880	624664	739795863	23.96
30249216	607392	709546647	23.46
29641824	595870	679904023	22.94
29045954	589820	650858869	22.41
28456134	589077	622402735	21.87
27867057	593363	594535678	21.34
27273694	597310	567261984	20.79
26676384	611184	540585600	20.26
26065200	644525	514520400	19.74
25420675	676215	489099725	19.24
24744460	691600	464355265	18.77
24052860	691398	440302405	18.31
23361462	681316	416940943	17.85
22680146	666507	394260797	17.38
22013639	647323	372247158	16.91
21366316	623968	350880842	16.42
20742348	587730	330138494	15.92
20154618	552792	309983876	15.38
19601826	527640	290382050	14.81
19074186	524898	271307864	14.22
18549288	543052	252758576	13.63

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Two Years.

Ages.	Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
51 & 53	18267318	551850	243159648	13.31
52.. 54	17715468	564065	225444180	12.72
53.. 55	17151403	579403	208292777	12.14
54.. 56	16572000	589548	191720777	11.57
55.. 57	15982452	614452	175738325	10.93
56.. 58	15368000	656924	160370325	10.44
57.. 59	14711076	714670	145659249	9.90
58.. 60	13996406	796177	131662843	9.41
59.. 61	13200229	832244	118462614	8.97
60.. 62	12367985	861357	106094629	8.58
61.. 63	11506628	836143	94588001	8.22
62.. 64	10670485	807661	83917516	7.86
63.. 65	9862824	766982	74054692	7.51
64.. 66	9095842	732964	64958850	7.14
65.. 67	8362878	699566	56595972	6.76
66.. 68	7663312	666537	48932660	6.38
67.. 69	6996775	638927	41935885	5.99
68.. 70	6357848	608423	35578037	5.60
69.. 71	5749425	604082	29828612	5.19
70.. 72	5145343	598174	24683269	4.80
71.. 73	4547169	601906	20136100	4.43
72.. 74	3945263	600288	16190837	4.10
73.. 75	3344975	555860	12845862	3.84
74.. 76	2789115	512790	10056747	3.61
75.. 77	2276325	438630	7780422	3.42
76.. 78	1837695	368616	5942727	3.23
77.. 79	1469079	313090	4473648	3.05
78.. 80	1155989	251192	3317659	2.87
79.. 81	904797	213872	2412862	2.67
80.. 82	690925	169474	1721937	2.49
81.. 83	521451	137926	1200486	2.30
82.. 84	383525	106290	816961	2.13
83.. 85	277235	83092	539726	1.95
84.. 86	194143	62423	345583	1.78
85.. 87	131720	46576	213863	1.62
86 . 88	85144	31568	28719	1.51
87.. 89	53576	20632	75143	1.40
88.. 90	32944	13939	42199	1.28
89.. 91	19005	8355	23194	1.22
90.. 92	10650	4980	12544	1.18
91.. 93	5670	2670	6874	1.21
92.. 94	3000	1380	3874	1.29
93.. 95	1620	700	2254	1.39
94.. 96	920	380	1334	1.45
95.. 97	540	218	794	1.47
96.. 98	322	124	472	1.47
97.. 99	198	72	274	1.39
98..100	126	49	148	1.18
99..101	77	32	71	.92
100..102	45	24	26	.58
101..103	21	21	5	.24

TABLE XL. 951

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Three Years.

Number of Living. $l_m\,l_{m1}$ / $D_{m,\,m1}$	Decrement $l_m\,l_{m1} - l_{m+1}\,l_{m1+1}$	Sum of Living at Higher Ages. $N_{m,\,m1}$	Curtate Expectation. $N_{m,\,m1}$ / $D_{w,\,m1}$
72740000	13529922	1920439138	26.40
59210078	6336215	1861229060	31.44
52873863	4312639	1808355197	34.20
48561224	2416412	1759793973	36.24
46144812	1719620	1713649161	37.14
44425192	1077924	1669223969	37.57
43347268	750028	1625876701	37.51
42597240	564224	1583279461	37.17
42033016	477816	1541246445	36.67
41555200	417920	1499691245	36.09
41137280	396895	1458553965	35.46
40740385	420385	1417813580	34.80
40320000	449952	1377493580	34.15
39870048	472683	1337623532	33.55
39397365	488565	1298226167	32.95
38908800	510087	1259317367	32.37
38398713	525003	1220916654	31.80
37873710	527438	1183044944	31.24
37346272	517607	1145698672	30.68
36828665	513995	1108870007	30.11
36314670	510383	1072555337	29.53
35804287	500892	1036751050	28.96
35303395	503327	1001447655	28.37
34800068	499715	966647587	27.78
34300353	507861	932347234	27.18
33792492	538964	898554742	26.59
33253528	569422	865301214	26.02
32684106	581526	832617108	25.47
32102580	604036	800514528	24.94
31498544	625520	769015984	24.41
30873024	619079	738142960	23.91
30253945	612809	707889015	23.40
29641136	601232	678247879	22.88
29039904	595237	649207975	22.36
28444667	594439	620763308	21.82
27850228	593476	592913080	21.29
27256752	607927	565656328	20.72
26648825	632079	539007503	20.23
26016746	644906	512990757	19.72
25371840	661665	487618917	19.22
24710175	676993	462903742	18.73
24033182	681802	438875560	18.26
23351380	676447	415524180	17.79
22674933	661709	392849247	17.33
22013224	642457	370836023	16.85
21370767	609861	349465256	16.36
20760906	587470	328704350	15.83
20173436	561338	308530914	15.29
19612098	549690	288918816	14.73
19062408	546641	269856408	14.15
18515767	543433	251340641	13.57

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Three Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
51 & 54	17972334	556186	233368397	12.98
52.. 55	17416148	572148	215952159	12.40
53.. 56	16844000	586868	199108159	11.82
54.. 57	16257132	608666	182851027	11.25
55.. 58	15648466	652466	167202561	10.68
56.. 59	14996000	700868	152206561	10.15
57.. 60	14295132	767450	137911429	9.65
58.. 61	13527682	799827	124383747	9.19
59.. 62	12727855	822531	111655892	8.77
60.. 63	11905324	838821	99750568	8.38
61.. 64	11066503	820393	88684065	8.01
62.. 65	10246110	788518	78437955	7.66
63.. 66	9457592	748339	68980363	7.29
64.. 67	8709253	717589	60271110	6.92
65.. 68	7991664	684314	52279446	6.54
66.. 69	7307350	654179	44972096	6.15
67.. 70	6653171	623675	38318925	5.76
68.. 71	6029496	618421	32289429	5.36
69.. 72	5411075	616278	26878354	4.97
70.. 73	4794797	602840	22083557	4.61
71.. 74	4191957	602432	17891600	4.27
72.. 75	3589525	564070	14302075	3.98
73.. 76	3025455	523536	11276620	3.73
74.. 77	2501919	470144	8774701	3.51
75.. 78	2031775	394060	6742926	3.32
76.. 79	1637715	342588	5105211	3.11
77.. 80	1295127	279846	3810084	2.94
78.. 81	1015281	231556	2794803	2.75
79.. 82	783725	190006	2011078	2.57
80.. 83	593719	150946	1417359	2.39
81.. 84	442773	120148	974586	2.20
82.. 85	322625	93984	651961	2.02
83.. 86	228641	72057	423320	1.85
84.. 87	156584	53344	266736	1.70
85.. 88	103240	36813	163496	1.58
86.. 89	66427	24395	97069	1.46
87.. 90	42032	17672	55037	1.31
88.. 91	24360	10785	30677	1.26
89.. 92	13575	5907	17102	1.26
90.. 93	7668	3468	9434	1.23
91.. 94	4200	1950	5234	1.25
92.. 95	2250	1008	2984	1.33
93.. 96	1242	522	1742	1.40
94.. 97	720	300	1022	1.42
95.. 98	420	167	602	1.43
96.. 99	253	91	349	1.38
97..100	162	64	187	1.15
98..101	98	43	89	.91
99..102	55	28	34	.62
100..103	27	20	7	.26
101..104	7	7	..	..

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Four Years.

Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m.l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Certain Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
69980000	12470583	1893286526	27.05
57509417	5576813	1835777109	31.92
51932604	3967848	1783844505	34.34
47964756	2225828	1735879749	36.19
45738928	1606007	1690140821	36.95
44132921	1005961	1646007900	37.29
43126960	720946	1602880940	37.16
42406014	575614	1560474926	36.79
41830400	482976	1518644526	36.30
41347424	423324	1477297102	35.72
40924100	408800	1436373002	35.09
40515300	444900	1395857702	34.45
40070400	467808	1355787302	33.83
39602592	477632	1316184710	33.23
39124960	487060	1277059750	32.64
38637900	508410	1238421850	32.05
38129490	523197	1200292360	31.47
37606293	519413	1162686067	30.91
37086880	515801	1125599187	30.35
36571079	512189	1089028108	29.78
36058890	508577	1052969218	29.20
35550313	505133	1017418905	28.61
35045180	501521	982373725	28.03
34543659	509731	947830066	27.43
34033908	535366	913796158	26.84
33498542	571830	880297616	26.27
32926712	572807	847370904	25.73
32353905	578961	815016999	25.19
31774944	595488	783242055	24.65
31179456	616742	752062599	24.12
30562714	615944	721499885	23.60
29946770	609674	691553115	23.09
29337096	603624	662216019	22.57
28733472	597574	633482547	22.04
28135898	596666	605346649	21.51
27539232	606207	577807417	20.98
26933025	630766	550874392	20.45
26302259	643899	524572133	19.94
25658360	651176	498913773	19.44
25007184	657334	473906589	18.95
24349850	672307	449556739	18.46
23677543	671963	425879196	17.98
23005580	666608	402873616	17.51
22338972	647214	380534644	17.03
21691758	618792	358842886	16.54
21072966	596137	337769920	16.02
20476829	574085	317293691	15.49
19902744	570948	297390347	14.94
19331796	559158	278058551	14.38
18772638	555867	259285913	13.81
18216771	548097	241069142	13.23

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Four Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\frac{N_{m, m_1}}{D_{m, m_1}}$
51 & 55	17668674	564674	223400468	12.64
52.. 56	17104000	580036	206296468	12.06
53.. 57	16523964	606558	189772504	11.48
54.. 58	15917406	647729	173855098	10.92
55.. 59	15269677	697677	158585421	10.38
56.. 60	14572000	755596	144013421	9.88
57.. 61	13816404	772814	130197017	9.42
58.. 62	13043590	791858	117153427	8.98
59.. 63	12251732	801783	104901695	8.56
60.. 64	11449949	823571	93451746	8.16
61.. 65	10626378	801248	82825368	7.79
62.. 66	9825130	769502	73000238	7.42
63.. 67	9055628	732964	63944610	7.06
64.. 68	8322664	702214	55621946	6.68
65.. 69	7620450	671956	48001496	6.30
66.. 70	6948494	638927	41053002	5.91
67.. 71	6309567	624903	34743435	5.51
68.. 72	5674664	632239	29068771	5.12
69.. 73	5042425	622184	24026346	4.76
70.. 74	4420241	606266	19606105	4.43
71.. 75	3813975	567330	15792130	4.14
72.. 76	3246645	532722	12545485	3.86
73.. 77	2713923	480790	9831562	3.62
74.. 78	2233133	422458	7598429	3.40
75.. 79	1810675	366880	5787754	3.20
76.. 80	1443795	306312	4343959	3.01
77.. 81	1137483	258058	3206476	2.82
78.. 82	879425	205962	2327051	2.65
79.. 83	673463	169326	1653588	2.45
80.. 84	504137	131672	1149451	2.28
81.. 85	372465	106390	776986	2.09
82.. 86	266075	81667	510911	1.92
83.. 87	184408	61680	326503	1.77
84.. 88	122728	42183	203775	1.66
85.. 89	80545	28431	123230	1.53
86.. 90	52114	21034	71116	1.36
87.. 91	31080	13680	40036	1.29
88.. 92	17400	7626	22636	1.30
89.. 93	9774	4094	12862	1.32
90.. 94	5680	2530	7182	1.26
91.. 95	3150	1425	4032	1.28
92.. 96	1725	753	2307	1.33
93.. 97	972	412	1335	1.37
94.. 98	560	230	775	1.38
95.. 99	330	123	445	1.35
96..100	207	81	238	1.15
97..101	126	56	112	.89
98..102	70	37	42	.60
99..103	33	24	33	1.
100..104	9	9	9	.27

TABLE XL. 966

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Five Years.

Number of Living. $\frac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
67970000	11484364	1867082009	27.46
56485636	5190910	1810596373	32.05
51294726	3751862	1759301647	34.29
47542864	2104650	1711758783	36.00
45438014	1529394	1666320769	36.67
43908620	975264	1622412149	▉▉.▉▉
42933356	731756	1579478793	36.78
42201600	580352	1537277193	36.42
41621248	488093	1495655945	35.93
41133155	435155	1454522790	▉▉.▉▉
40698000	433509	1413824790	34.73
40264491	462891	1373560299	34.11
39801600	472832	1333758699	33.51
39328768	476213	1294429931	32.91
38852555	485555	1255577376	32.31
38367000	506733	1217210376	31.72
37860267	515172	1179350109	31.15
37345095	517607	1142005014	30.58
36827488	513995	1105177526	30.00
36313493	510383	1068864033	29.43
35803110	512818	1033060923	28.85
35290292	503327	997770631	28.26
34786965	511641	962983666	27.68
34275324	537466	928708342	27.09
33737858	568540	894970484	26.52
33169318	575258	861801166	25.96
32594060	570356	829207106	25.44
32023704	570648	797183402	24.89
31453056	586990	765730346	24.34
30866066	613662	734864280	23.80
30252404	612809	704611876	23.29
29639595	612067	674972281	22.77
29027528	605960	645944753	22.25
28421568	599856	617523185	21.73
27821712	609562	589701473	21.19
27212150	629387	562499323	20.67
26582763	642823	535906560	20.16
25939940	650354	509966620	19.65
25289586	647058	484677034	19.17
24642528	653003	460034506	18.67
23989525	662612	436044981	18.17
23326913	662193	412718068	17.68
22664720	651971	390053348	17.20
22012749	623265	368040599	16.71
21389484	604865	346651115	16.20
20784619	▉▉▉▉▉▉	▉▉▉▉▉▉▉▉	15.67
20202066	583778	305664430	15.13
19618288	580357	286046142	14.58
19037931	668437	267008211	▉▉.▉▉
18469494	560513	248538717	13.46

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Five Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m,m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m,m_1}	Carlisle Expectation. $\dfrac{N_{m,m_1}}{D_{m,m_1}}$
50 & 55	17903981	556981	230629736	12.88
51.. 56	17352000	572976	213277736	12.29
52.. 57	16779024	600362	196498712	11.71
53.. 58	16178662	646555	180320050	11.15
54.. 59	15532107	694168	164787943	10.60
55.. 60	14837939	753939	149950004	10.10
56.. 61	14084000	762020	135866004	9.65
57.. 62	13321980	766324	122544024	9.20
58.. 63	12555656	772549	109988368	8.76
59.. 64	11783107	788533	98205261	8.33
60.. 65	10994574	804800	87210687	7.93
61.. 66	10189774	782229	77020913	7.56
62.. 67	9407545	753881	67613368	7.19
63.. 68	8653664	717589	58959704	6.81
64.. 69	7936075	689857	51023629	6.43
65.. 70	7246218	656580	43777411	6.04
66.. 71	6589638	651385	37187773	5.64
67.. 72	5938253	650197	31249520	5.26
68.. 73	5288056	639531	25961464	4.91
69.. 74	4648525	626850	21312939	4.58
70.. 75	4021675	572020	17291264	4.30
71.. 76	3449655	537318	13841609	4.01
72.. 77	2912337	489976	10929272	3.75
73.. 78	2422361	432240	8506911	3.51
74.. 79	1990121	393846	6516790	3.27
75.. 80	1596275	328220	4920515	3.08
76.. 81	1268055	282780	3652460	2.88
77.. 82	985275	229576	2667185	2.71
78.. 83	755699	183850	1911486	2.53
79.. 84	571849	147764	1339637	2.34
80.. 85	424085	116906	915552	2.16
81.. 86	307179	92579	608373	1.98
82.. 87	214600	70064	393773	1.83
83.. 88	144536	48787	249237	1.72
84.. 89	95749	32559	153488	1.60
85.. 90	63190	24655	90293	1.43
86.. 91	38535	16335	51763	1.34
87.. 92	22200	9672	29563	1.33
88.. 93	12528	5288	17035	1.36
89.. 94	7240	2980	9795	1.35
90.. 95	4260	1845	5535	1.30
91.. 96	2415	1065	3120	1.29
92.. 97	1350	594	1770	1.31
93.. 98	756	316	1014	1.34
94.. 99	440	170	574	1.31
95..100	270	109	304	1.13
96..101	161	71	143	.88
97..102	90	48	53	.59
98..103	42	31	11	.26
99..104	11			

TABLE XL.   957

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Six Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
64760000	10968166	1841201703	27.58
53791834	4948290	1785409874	21.04
50843544	3613462	1734566330	34.12
47230082	2023002	1687336248	35.73
45207060	1495573	1642129168	36.32
43711507	985107	1598417661	36.57
42726400	735808	1555691261	36.41
41990592	585032	1513700000	36.03
41405560	499660	1472295109	35.55
40905900	459840	1431389209	34.99
40446060	451671	1390943149	34.39
39994389	407989	1350948760	33.78
39526400	471456	1311422360	33.10
39054944	474794	1272367416	32.57
38560150	484050	1233787266	31.98
38096100	498795	1195691166	31.38
37597305	513408	1158091861	30.80
37083897	515801	1121009964	30.23
36568096	512189	1084441868	29.66
36055907	514667	1048385961	29.08
35541240	510969	1012544721	28.50
35030271	513531	977814450	27.91
34516740	539566	943297710	27.33
33977174	570892	909320536	26.76
33406282	572067	875914254	26.22
32834215	572807	843080039	25.68
32261408	562112	810318631	25.13
31699296	562380	779119335	24.58
31136916	584240	747982419	24.02
30552676	610582	717429743	23.47
29942094	615259	687487649	22.96
29326835	614403	656900014	22.44
28712432	608240	629448382	21.92
28104192	612917	601344190	21.40
27491275	633017	573852915	20.88
26858258	641678	546994657	20.36
26216580	649461	520778077	19.86
25567119	646307	495210958	19.37
24920812	642940	470290146	18.87
24277872	643597	446012274	18.37
23634275	652983	422377999	17.87
22981292	647552	399396707	17.38
22333740	627738	377062967	16.88
21706002	609196	355356965	16.37
21096806	591080	334260159	15.84
20505726	592394	313754433	15.40
19913332	593264	293841101	14.75
19320068	589565	274521033	14.21
18730503	573069	255790530	13.65
18157434	569434	237633096	13.08

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Five Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Certain Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
50 & 55	17903981	556981	230629736	12.88
51.. 56	17352000	572976	213277736	12.29
52.. 57	16779024	600362	196498712	11.71
53.. 58	16178662	646555	180320050	11.15
54.. 59	15532107	694168	164787943	10.60
55.. 60	14837939	753939	149950004	10.10
56.. 61	14084000	762020	135866004	9.65
57.. 62	13321980	766324	122544024	9.20
58.. 63	12555656	772549	109988368	8.76
59.. 64	11783107	788533	98205261	8.33
60.. 65	10994574	804800	87210687	7.93
61.. 66	10189774	782229	77020913	7.56
62.. 67	9407545	753881	67613368	7.19
63.. 68	8653664	717589	58959704	6.81
64.. 69	7936075	689857	51023629	6.43
65.. 70	7246218	656580	43777411	6.04
66.. 71	6589638	651385	37187773	5.64
67.. 72	5938253	650197	31249520	5.26
68.. 73	5288056	639531	25961464	4.91
69.. 74	4648525	626850	21312939	4.58
70.. 75	4021675	572020	17291264	4.30
71.. 76	3449655	537318	13841609	4.01
72.. 77	2912337	489976	10929272	3.75
73.. 78	2422361	432240	8506911	3.51
74.. 79	1990121	393846	6516790	3.27
75.. 80	1596275	328220	4920515	3.08
76.. 81	1268055	282780	3652460	2.88
77.. 82	985275	229576	2667185	2.71
78.. 83	755699	183850	1911486	2.53
79.. 84	571849	147764	1339637	2.34
80.. 85	424085	116906	915552	2.16
81.. 86	307179	92579	608373	1.98
82.. 87	214600	70064	393773	1.83
83.. 88	144536	48787	249237	1.72
84.. 89	95749	32559	153488	1.60
85.. 90	63190	24655	90293	1.43
86.. 91	38535	16335	51763	1.34
87.. 92	22200	9672	29563	1.33
88.. 93	12528	5288	17035	1.36
89.. 94	7240	2980	9795	1.35
90.. 95	4260	1845	5535	1.30
91.. 96	2415	1065	3120	1.29
92.. 97	1350	594	1770	1.31
93.. 98	756	316	1014	1.34
94.. 99	440	170	574	1.31
95..100	270	109	304	1.13
96..101	161	71	143	.88
97..102	90	48	53	.59
98..103	42	31	11	.26
99..104	11			

TABLE XI. 257

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Six Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
69760000	10968166	1841201708	27.58
55791834	4948290	1785409874	32.00
50843544	3613462	1734566330	34.12
47230082	2023002	1687336248	35.73
45207080	1495573	1642129108	36.18
43711507	985107	1598417661	36.57
42726400	735808	1555691261	36.41
41990592	585032	1513700669	36.05
41405560	499660	1472295109	35.54
40905900	459840	1431389209	34.99
40446060	451671	1390943149	34.39
39994179	467969	1350948760	33.78
39526400	471456	1311422360	33.18
39054944	474794	1272367416	32.57
38580150	484050	1233787266	31.98
38096100	498795	1195691166	31.38
37597305	513408	1158093861	30.80
37083897	515801	1121009964	30.23
36568096	512189	1084441868	29.66
36055907	514667	1048385961	29.08
35541240	510969	1012844721	28.50
35030271	513531	977814450	27.91
34516740	539566	943297710	27.33
33977174	570892	909320536	26.76
33406282	572067	875914254	26.22
32834215	572807	843080039	25.68
32261408	562112	810818631	25.13
31699296	562380	779119335	24.58
31136916	584240	747982419	24.02
30552676	610582	717429743	23.47
29942094	615259	687487649	22.96
29326835	614403	658160814	22.44
28712432	608240	629448382	21.92
28104192	612917	601344190	21.40
27491275	633017	573852915	20.88
26858258	641678	546994657	20.36
26216580	649461	520778077	19.86
25567119	646307	495210958	19.37
24920812	642940	470290146	18.87
24277872	643597	446012274	18.37
23634275	652983	422377999	17.87
22981292	647552	399396707	17.38
22333740	627738	377062967	16.88
21706002	609196	355356965	16.37
21096806	591080	334260159	15.84
20505726	592394	313754433	15.40
19913332	593264	293841101	14.75
19320068	589565	274521043	14.21
18730503	573069	255790430	13.65
18157434	569434	237633096	13.08

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Six Years.

Ages.	Number of Living. $l_m.\ l_{m_1}$ $D_{m.\ m_1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}\ l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m.\ m_1}$	Curtate Expectation. $\dfrac{N_{m.\ m_1}}{D_{m.\ m_1}}$
50 & 56	17538000	565638	220045096	12.51
51.. 57	17022312	593920	203022784	11.34
52.. 58	16428392	641353	186594392	11.36
53.. 59	15787039	694090	170807353	10.82
54.. 60	15092949	751916	155714404	10.31
55.. 61	14341033	761033	141373371	9.86
56.. 62	13580000	756368	127793371	9.41
57.. 63	12823632	748226	114969739	8.96
58.. 64	12075406	760924	102894333	8.52
59.. 65	11314482	771640	91579851	8.09
60.. 66	10542842	786151	81037009	7.69
61.. 67	9756691	766731	71280318	7.30
62.. 68	8989960	738260	62290358	6.93
63.. 69	8251700	705357	54038658	6.55
64.. 70	7546343	674357	46492315	6.16
65.. 71	6871986	670144	39620329	5.77
66.. 72	6201842	668155	33418487	5.39
67.. 73	5533687	658719	27884800	5.04
68.. 74	4874968	645593	23009832	4.72
69.. 75	4229375	591860	18780457	4.44
70.. 76	3637515	543072	15142942	4.16
71.. 77	3094443	494984	12048499	3.89
72.. 78	2599459	440702	9449040	3.64
73.. 79	2158757	404284	7290283	3.38
74.. 80	1754473	352498	5535810	3.16
75.. 81	1401975	303600	4133835	2.95
76.. 82	1098375	251718	3035460	2.77
77.. 83	846657	204980	2188803	2.57
78.. 84	641677	160632	1547126	2.41
79.. 85	481045	131294	1066081	2.22
80.. 86	349751	101999	716330	2.05
81.. 87	247752	79552	468578	1.89
82.. 88	168200	55437	300378	1.78
83.. 89	112763	37645	187615	1.66
84.. 90	75118	28393	112497	1.49
85.. 91	46725	19200	65772	1.41
86.. 92	27525	11541	38247	1.39
87.. 93	15984	6704	22263	1.39
88.. 94	9280	3850	12983	1.50
89.. 95	5430	2164	7553	1.39
90.. 96	3266	1376	4287	1.31
91.. 97	1890	840	2397	1.26
92.. 98	1050	456	1347	1.28
93.. 99	594	234	753	1.27
94..100	360	150	393	1.09
95..101	210	95	183	.87
96..102	115	61	68	.59
97..103	54	40	14	.26
98..104	14	14		

TABLE XL.   950

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Seven Years.

Number of Living. $l_m.l_{m_1}$ D_{m,m_1}	Decrement. $l_m.l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m,m_1}	Carlisle Expectation. $\dfrac{N_{m,m_1}}{D_{m,m_1}}$
65940000	10638904	1815351435	27.53
55301096	4792049	1760050329	31.83
50509047	3519007	1709541283	33.84
46990040	1985902	1662551242	35.38
45004138	1503338	1617547104	35.94
43500800	988032	1574046304	36.18
42512768	739778	1531533536	36.02
41772990	596190	1489760546	35.66
41176800	524127	1448583746	35.18
40652673	477933	1407931073	34.63
40174740	456884	1367756333	34.04
39717856	466656	1328038477	33.44
39251200	470080	1288787277	32.83
38781120	473375	1250006157	32.23
38307745	476245	1211698412	31.63
37831500	497157	1173866912	31.03
37334343	511644	1136532569	30.44
36822699	513995	1099700870	29.87
36308704	516516	1063401166	29.29
35792188	512818	1027608978	28.71
35279370	521214	992329608	28.13
34758156	541666	957571452	27.55
34216490	573244	923354962	26.99
33643246	574461	889711716	26.45
33068785	569673	856642931	25.90
32499112	564520	824143819	25.36
31934592	553911	792209227	24.81
31380681	559905	760828546	24.24
30820776	581490	730007770	23.69
30239286	613144	699768484	23.14
29626142	617652	670142342	22.62
29008490	616682	641133852	22.10
28391808	621408	612742044	21.58
27770400	636647	584971644	21.06
27133753	645473	557837891	20.56
26488280	648497	531349611	20.06
25839783	645485	505509828	19.56
25194298	642260	480315530	19.06
24552038	633686	455763492	18.55
23918352	634252	431845140	18.06
23284100	638411	408561040	17.55
22645689	623169	385915351	17.04
22022520	613527	363892831	16.52
21408993	595269	342483838	16.00
20813724	601072	321670114	15.46
20212652	602025	301457462	14.91
19610627	602543	281846835	14.37
19008084	594051	262838751	13.83
18414033	582033	244424718	13.27

Carlisle Rate of Mortality for Two Joint Lives

Difference of Age Seven Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
49 & 56	17832000	578172	226592718	12.71
50.. 57	17253828	587232	209338890	12.13
51.. 58	16666596	635872	192672294	11.56
52.. 59	16030724	690051	176641570	11.03
53.. 60	15340673	753170	161300897	10.51
54.. 61	14587503	759668	146713394	10.06
55.. 62	13827835	755835	132885559	9.61
56.. 63	13072000	738868	119813559	9.17
57.. 64	12333132	737976	107480427	8.72
58.. 65	11595156	745550	95885271	8.27
59.. 66	10849606	754853	85035665	7.84
60.. 67	10094753	771145	74940912	7.43
61.. 68	9323608	751233	65617304	7.04
62.. 69	8572375	725907	57044929	6.65
63.. 70	7846468	689857	49198461	6.27
64.. 71	7156611	689037	42041850	5.88
65.. 72	6467574	688256	35574276	5.50
66.. 73	5779318	677907	29794958	5.16
67.. 74	5101411	666011	24693547	4.84
68.. 75	4435400	610025	20258147	4.57
69.. 76	3825375	562416	16432772	4.29
70.. 77	3262959	500958	13169813	4.04
71.. 78	2762001	445418	10407812	3.77
72.. 79	2316583	413442	8091229	3.49
73.. 80	1903141	362224	6188088	3.25
74.. 81	1540917	326542	4647171	3.02
75.. 82	1214375	270530	3432796	2.83
76.. 83	943845	224934	2488951	2.64
77.. 84	718911	179126	1770040	2.46
78.. 85	539785	143058	1230255	2.28
79.. 86	396727	114639	833528	2.10
80.. 87	282088	87904	551440	1.95
81.. 88	194184	62959	357256	1.84
82.. 89	131225	42759	226031	1.72
83.. 90	88466	32921	137565	1.56
84.. 91	55545	22170	82020	1.48
85.. 92	33375	13557	48645	1.46
86.. 93	19818	7978	28827	1.46
87.. 94	11840	4880	16987	1.43
88.. 95	6960	2797	10027	1.44
89.. 96	4163	1607	5864	1.41
90.. 97	2556	1086	3308	1.29
91.. 98	1470	635	1838	1.25
92.. 99	835	349	1003	1.20
93..100	486	206	517	1.06
94..101	280	130	237	.85
95..102	150	81	87	.58
96..103	69	51	18	.26
97..104	18	18		

TABLE XL.   861

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Eight Years.

	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages N_{m, w_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
8	65360000	10422727	1769352923	27.38
9	54937273	4684933	1734415650	31.57
0	50252140	3473246	1684163310	33.51
1	46779094	1991894	1637384216	35.00
3	44787200	1503904	1592597016	35.56
3	43263706	990836	1549313720	35.79
4	42292460	750260	1507021260	35.63
5	41542200	620304	1465479060	35.28
6	40921896	541929	1424557164	34.81
7	40379967	611000	1384177197	34.28
8	39696960	455637	1344280237	33.69
9	39441323	465323	1304838914	33.09
	38976000	468704	1265862914	32.48
	38507296	465621	1227355618	31.87
	38041675	474775	1189313943	31.26
	37566900	495519	1151747043	30.66
	37071381	509860	1114675662	30.07
	36551501	518365	1078114161	29.49
	36043136	514067	1042071025	28.91
	35529469	523149	1006542556	28.33
	35005320	549514	971537236	27.75
	34455806	575596	937081430	27.19
	33880210	576855	903201220	26.66
	33303355	572067	869897865	26.12
	32731288	561400	837166577	25.58
	32169888	566276	804995689	25.02
	31613612	551546	773383077	24.46
	31066066	557430	742321011	23.90
	30504636	584438	711816375	23.33
	29920198	615650	681896177	22.79
	29304548	619958	652591629	22.27
	28684590	629960	623907069	21.75
	28054600	645352	595852469	21.24
	27409248	649269	568443221	20.74
	26759980	652402	541683241	20.24
	26107578	644592	515575663	19.75
	25462986	641509	490112677	19.25
	24821477	633019	465291200	18.75
	24188458	624490	441102742	18.24
	23563968	619893	417538774	17.72
	22944075	613953	394594699	17.20
	22330122	608942	372264577	16.67
	21721180	599458	350543397	16.14
	21121722	605474	329421675	15.60
	20516248	610851	308905427	15.06
	19905397	611446	289000930	14.52
	19293951	607027	269706079	13.93
	18686924	602924	251019155	13.43
	18084000		232935155	12.88

3 q

Carlisle Rate of Mortality for Two Joint Lives

Difference of Age Eight Years.

Ages.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
49 & 57	17493192	599918	215441963	12.31
50.. 58	16893274	630112	198548689	11.75
51.. 59	16263162	685694	182285527	11.21
52.. 60	15577468	750537	166708059	10.70
53.. 61	14826931	761446	151881128	10.24
54.. 62	14065485	754921	137815643	9.80
55.. 63	13310564	738564	124505079	9.35
56.. 64	12572000	729368	111933079	8.90
57.. 65	11842632	723884	100090447	8.45
58.. 66	11118748	730269	88971699	8.00
59.. 67	10388479	741815	78563220	7.56
60.. 68	9646664	756139	68936556	7.15
61.. 69	8890525	739130	60046031	6.75
62.. 70	8151395	710159	51894636	6.37
63.. 71	7441236	705787	44453400	5.97
64.. 72	6735449	708503	37717951	5.60
65.. 73	6026946	699092	31691005	5.26
66.. 74	5327854	686429	26363151	4.95
67.. 75	4641425	629705	21721726	4.68
68.. 76	4011720	580245	17710006	4.41
69.. 77	3431475	519062	14278531	4.16
70.. 78	2912413	450976	11366118	3.90
71.. 79	2461437	419158	8904681	3.62
72.. 80	2042279	370790	6862402	3.36
73.. 81	1671489	336764	5190913	3.11
74.. 82	1334725	291200	3856188	2.89
75.. 83	1043525	242090	2812663	2.70
76.. 84	801435	196670	2011228	2.51
77.. 85	604755	159594	1406473	2.33
78.. 86	445171	125195	961302	2.16
79.. 87	319976	98860	641326	2.00
80.. 88	221096	69599	420230	1.90
81.. 89	151497	48547	268733	1.77
82.. 90	102950	37535	165783	1.61
83.. 91	65415	25740	100368	1.53
84.. 92	39675	15645	60693	1.53
85.. 93	24030	9350	36663	1.53
86.. 94	14680	5800	21983	1.50
87.. 95	8880	3544	13103	1.47
88.. 96	5336	2078	7767	1.46
89.. 97	3258	1270	4509	1.38
90.. 98	1988	833	2521	1.27
91.. 99	1155	480	1366	1.18
92..100	675	297	691	1.02
93..101	378	178	313	.83
94..102	200	110	113	.57
95..103	90	67	23	.26
96..104	23	23		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Nine Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
54930000	10271940	1763096728	27.15
54658060	4631311	1706438668	31.26
50026749	3473149	1658411919	33.15
46553600	1990335	1611858319	34.61
44563264	1504269	1567295055	35.17
43058995	1000195	1524236060	35.39
42058800	773766	1484177260	35.24
41285034	637650	1440892226	34.90
40647384	546616	1400144041	34.45
40100768	481588	1360144074	33.91
39619180	454390	1320524894	33.33
39164790	463990	1281360104	32.72
38700800	460960	1243638304	32.11
38239840	464235	1204419404	31.49
37775605	473385	1166643859	30.88
37302300	493881	1129341559	30.28
36808419	514335	1092533140	29.68
36294084	516516	1056239056	29.10
35777568	525084	1020461488	28.52
35252484	551664	985209004	27.95
34700820	583646	950508184	27.39
34117174	579249	916391010	26.86
33537925	574461	882853085	26.32
32963464	563752	849869621	25.78
32399712	553169	817459969	25.23
31846543	553911	785643366	24.67
31292632	549181	754350734	24.11
30743451	560703	723607283	23.54
30182748	587336	693424535	22.98
29595412	618100	663829123	22.43
28977312	633437	634851811	21.91
28344875	654123	606507038	21.39
27689752	658072	578818184	20.90
27031680	656307	551786504	20.41
26375373	648497	525411131	19.92
25726876	640687	499684255	19.42
25086189	632282	474598066	18.92
24453907	623835	450144159	18.41
23830072	610216	426314087	17.69
23219856	595506	403094231	17.36
22624350	599777	380463531	16.81
22024573	594853	358419008	16.28
21429720	609873	337015568	15.72
20819844	615466	316195744	15.19
20204378	620417	295991366	14.65
19583961	616000	276407405	14.11
18967961	615961	257439444	13.57
18352000	611596	239087444	13.03

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Nine Years.

Ages.	Number of Living. $\frac{l_m \cdot l_{m_1}}{D_{m,\,m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\,m_1}$	Curtate Expectat. $\frac{N_{m,\,m_1}}{D_{m,\,m_1}}$
48 & 57	17740404	612768	221347040	12.48
49 .. 58	17127636	643283	204219 04	11.93
50 .. 59	16484353	681019	187735051	11.39
51 .. 60	15803334	747538	171931717	10.88
52 .. 61	15055796	759451	156875921	10.42
53 .. 62	14296345	757021	142579576	9.97
54 .. 63	13539324	737885	129040252	9.53
55 .. 64	12801439	729439	116238813	9.08
56 .. 65	12072000	715944	104166813	8.63
57 .. 66	11356056	709874	92810757	8.17
58 .. 67	10646182	718830	82164575	7.72
59 .. 68	9927352	728777	72237223	7.28
60 .. 69	9198575	744654	63038648	6.85
61 .. 70	8453921	723506	54554727	6.46
62 .. 71	7730415	727091	46854312	6.06
63 .. 72	7003324	726753	39350938	5.69
64 .. 73	6276571	720433	33574417	5.35
65 .. 74	5556138	708688	28018279	5.04
66 .. 75	4847450	649385	23170829	4.78
67 .. 76	4198065	599433	18972764	4.52
68 .. 77	3598632	535807	15374132	4.27
69 .. 78	3062825	467344	12311307	4.02
70 .. 79	2595481	425500	9715826	3.74
71 .. 80	2169981	376290	7545845	3.48
72 .. 81	1793691	345866	5752154	3.21
73 .. 82	1417825	300882	4304329	2.97
74 .. 83	1146943	260668	3157386	2.75
75 .. 84	886075	211900	2271311	2.56
76 .. 85	674175	175122	1597136	2.37
77 .. 86	498753	139703	1098383	2.20
78 .. 87	359048	108256	739335	2.06
79 .. 88	250792	78299	488543	1.94
80 .. 89	172493	53639	316050	1.83
81 .. 90	118854	42729	197196	1.66
82 .. 91	76125	29400	121071	1.59
83 .. 92	46725	18159	74316	1.59
84 .. 93	28566	10766	45780	1.60
85 .. 94	17800	6790	27980	1.57
86 . 95	11010	4202	16970	1.54
87 .. 96	6808	2632	10162	1.49
88 .. 97	4176	1642	5986	1.43
89 .. 98	2534	972	3452	1.36
90 .. 99	1562	617	1890	1.21
91 ..100	945	420	945	1.00
92 ..101	525	255	420	.80
93 ..102	270	150	150	.56
94 ..103	120	90	30	.25
95 ..104	30	30		

TABLE XL. 865

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Ten Years.

	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrements. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0	64600000	10187309	1736509072	26.88
1	54412691	4627091	1682096381	30.91
2	49785600	3464768	1632310781	32.79
3	46320832	1988502	1585989949	34.24
4	44332330	1511230	1541657619	34.78
5	42821100	1022664	1498836519	35.00
6	41798436	790350	1457038083	34.86
7	41008086	641750	1416029997	34.53
8	40366336	544767	1375563661	34.08
9	39821569	######	1335842092	33.55
0	39341400	453143	1296500692	32.95
1	38688257	456257	1257612435	32.34
2	38432000	459616	1219180435	31.72
3	37972384	462849	1181208051	31.11
4	37509535	471835	1143698516	30.##
5	37037700	498504	1106660816	29.88
6	36539196	######	1070121620	29.29
7	36026667	527019	1034094953	28.70
8	35499648	553614	998595305	28.13
9	34945934	586054	963649471	27.58
0	34359780	587245	929289691	27.05
1	33772495	576855	895517196	##.##
2	33195640	566104	862321556	##.##
3	32629536	555479	829692020	25.43
4	32074057	550859	797617963	24.87
5	31523198	551546	766094765	24.30
6	30971652	552609	735123113	23.74
7	30419043	563931	704704070	23.18
8	29855112	590184	674848958	22.60
9	29264928	631778	645584030	22.06
0	28633150	657885	616950880	21.55
1	27975265	666945	588975615	21.05
2	27308320	665152	561667295	20.57
3	26643168	652402	535024127	20.08
4	25990766	644592	509033361	19.59
5	25346174	631475	483697187	19.08
6	24714699	623111	458972488	18.57
7	24091588	609514	434880900	18.05
8	23482074	585786	411398826	17.52
9	22896288	581513	388502533	16.97
0	22314775	585733	366187763	16.41
1	21729042	605602	344458721	15.85
2	21123440	620081	323335281	15.31
3	20503359	625245	302831922	14.77
4	19878114	625043	262953808	##.##
5	19253071	625071	263700737	13.70
6	18628000	624688	245072737	13.16
7	18003312	633630	227069123	12.61
8	17369682	636640	209699743	12.07

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Ten Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
49 & 59	16713042	694771	192986701	11.55
50 .. 60	16018271	744173	176968430	11.05
51 .. 61	15274098	757078	161694332	10.59
52 .. 62	14517020	755472	147177312	10.14
53 .. 63	13761548	740099	133415764	9.70
54 .. 64	13021449	729135	120394315	9.25
55 .. 65	12292314	716314	108102001	8.79
56 .. 66	11576000	702596	96526001	8.34
57 .. 67	10873404	699788	85652597	7.88
58 .. 68	10173616	707391	75478981	7.43
59 .. 69	9466225	719382	66012756	6.97
60 .. 70	8746843	729526	57265913	6.55
61 .. 71	8017317	741832	49248596	6.14
62 .. 72	7275485	749289	41973111	5.77
63 .. 73	6526196	739933	35446915	5.43
64 .. 74	5786263	731113	29660652	5.13
65 .. 75	5055150	670740	24605502	4.87
66 .. 76	4384410	618621	20221092	4.61
67 .. 77	3765789	553765	16455303	4.37
68 .. 78	3212024	482499	13243279	4.12
69 .. 79	2729525	441372	10513754	3.85
70 .. 80	2288153	382304	8225601	3.59
71 .. 81	1905849	352174	6319752	3.32
72 .. 82	1553675	309544	4766077	3.07
73 .. 83	1244131	270242	3521946	2.83
74 .. 84	973889	228514	2548057	2.62
75 .. 85	745375	189370	1802682	2.42
76 .. 86	556005	153741	1246677	2.24
77 .. 87	402264	120848	844413	2.10
78 .. 88	281416	85755	562997	2.00
79 .. 89	195661	60335	367336	1.88
80 .. 90	135326	47441	232010	1.71
81 .. 91	87885	33510	144125	1.64
82 .. 92	54375	20733	89750	1.65
83 .. 93	33642	12482	56108	1.67
84 .. 94	21160	7810	34948	1.65
85 .. 95	13350	4909	21598	1.62
86 .. 96	8441	3113	13157	1.56
87 .. 97	5328	2080	7829	1.47
88 .. 98	3248	1257	4581	1.41
89 .. 99	1991	713	2590	1.30
90 .. 100	1278	543	1312	1.03
91 .. 101	735	360	577	.79
92 .. 102	375	213	202	.54
93 .. 103	162	122	40	.25
94 .. 104	40	40		

TABLE XL. 967

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eleven Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
64310000	10159600	1709563522	26.58
54150400	4613728	1655413122	30.57
49536672	3455882	1605978150	32.42
46080790	1993390	1559795660	33.85
44087400	1531383	1515708260	34.36
42556017	1037973	1473152243	34.62
41518044	793500	1431634199	34.48
40724544	639256	1390909655	34.16
40085289	542918	1350624367	33.70
39542370	478750	1311281997	33.16
39063620	445465	1272218377	32.57
38618155	454953	1233600222	31.94
38163200	458272	1195437028	31.33
37704928	461463	1157732094	30.71
37243465	476665	1119444125	30.09
36766800	496827	1083721829	29.48
36269973	523161	1047451856	28.88
33746812	555964	1011705044	28.30
35190848	588462	976514198	27.75
34602386	589736	941911810	27.22
34012650	584834	907899164	26.69
33427816	568456	874471344	26.16
32859360	557789	841611994	25.61
32301571	553169	809310413	25.05
31748402	548549	777562011	24.49
31199853	555017	746362158	23.92
30644836	555994	715717322	23.11
30088842	567114	685628480	22.79
29521728	604378	656106752	22.23
28917350	656572	627189402	21.69
28260778	670878	598928624	21.19
27589900	674068	571338724	20.71
26915832	661176	544422892	20.23
26254656	648497	518168236	19.74
25606159	635325	492562077	19.24
24970834	622318	467591243	18.72
24348516	608745	443242727	18.20
23739771	584919	419502956	17.67
23154852	571860	396348104	17.12
22582992	567642	373765112	16.55
22015350	596866	351749762	15.98
21418484	616144	330331278	15.42
20802340	630073	309528938	14.88
20172267	630013	289356671	14.34
19542254	634254	269814417	13.81
18908000	633932	250906417	13.27
18274068	646972	232632349	12.73

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eleven Years.

Ages.	Number of Living. $l_m./_{m_1}$ D_{m, m_1}	Decrement. $l_m./_{m_1} - l_{m+1}./_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
47 & 58	17627096	677867	215005253	12.20
48 .. 59	16949229	708735	198056024	11.68
49 .. 60	16240494	758657	181815530	11.29
50 .. 61	15481837	754327	166333693	10.74
51 .. 62	14727510	753542	151606183	10.29
52 .. 63	13973968	738795	137632215	9.85
53 .. 64	13235173	731599	124397042	9.40
54 .. 65	12503574	716312	111893468	8.95
55 .. 66	11787262	703262	100116206	8.49
56 .. 67	11084000	693248	89022206	8.43
57 .. 68	10390752	689702	78631434	7.57
58 .. 69	9701050	699701	68930404	7.11
59 .. 70	9001349	706238	59929055	6.66
60 .. 71	8295111	749508	51633944	6.22
61 .. 72	7545503	765658	44088441	5.84
62 .. 73	6779815	763427	37308626	5.50
63 .. 74	6016388	751863	31292238	5.20
64 .. 75	5264525	692255	26027713	4.94
65 .. 76	4572270	639324	21455443	4.69
66 .. 77	3932946	571723	17522497	4.46
67 .. 78	3361223	498735	14161274	4.21
68 .. 79	2862488	456163	11298786	3.95
69 .. 80	2406325	396688	8892461	3.70
70 .. 81	2009637	358812	6882824	3.42
71 .. 82	1650825	315736	5231999	3.17
72 .. 83	1335089	278676	3896910	2.92
73 .. 84	1056413	237168	2840497	2.69
74 .. 85	819245	204520	2021252	2.47
75 .. 86	614725	166285	1406527	2.29
76 .. 87	448440	133152	958087	2.14
77 .. 88	315288	95735	642799	2.04
78 .. 89	219553	66051	423246	1.93
79 .. 90	153502	53437	269744	1.76
80 .. 91	100065	37290	169679	1.70
81 .. 92	62775	23625	116904	1.70
82 .. 93	39150	14230	67754	1.73
83 .. 94	24920	9050	42834	1.72
84 .. 95	15870	5635	26964	1.70
85 .. 96	10235	3629	16729	1.63
86 .. 97	6606	2462	10123	1.53
87 .. 98	4144	1592	5979	1.44
88 .. 99	2552	923	3427	1.34
89 ..100	1629	635	1798	1.10
90 ..101	994	469	804	.81
91 ..102	525	300	279	.53
92 ..103	225	171	54	.24
93 ..104	54	54		

TABLE XL. 969

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twelve Years.

Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
54000000	10120352	1682285049	26.28
53579649	4599683	1628405401	30.71
49279965	3453765	1579125436	32.04
45826260	2011722	1533299236	37.40
43814478	1543935	1489484758	34.00
42270543	1039567	1447214215	34.21
41230976	789974	1405983239	34.10
40441002	636762	1365542237	33.77
39804240	541069	1323737097	33.31
39263171	470871	1286174826	32.76
38792300	444247	1247682326	32.16
36348053	453653	1209334473	31.54
37894400	456928	1171440073	00.01
37437472	466412	1134002601	00.70
36971060	475160	1097031541	29.67
36495900	507672	1060535641	29.06
35986228	552366	1024547413	28.47
35435562	590870	969111551	27.91
34844992	592187	934266559	27.39
34252805	587285	920013754	26.86
33665520	576336	886348234	26.33
33089181	560099	853259050	25.79
32529065	553479	820729965	75.71
31973606	550859	788756359	24.67
31422747	552118	757333612	24.10
30870629	558445	726462923	23.53
30312184	559436	697697931	22.97
29752848	581748	666397931	22.40
29171100	629818	637241931	21.84
28541282	669802	608685569	21.32
27871480	678115	580814089	20.84
27193365	670021	553620724	20.36
26523344	657200	477097331	19.87
25866144	639175	501231236	19.38
25226969	626113	476004267	18.87
24600853	607909	451403411	18.35
23992947	583983	427410464	17.81
23408958	570940	404001248	17.26
22838018	558050	341163458	16.69
22279968	579268	358983520	16.11
21700700	607801	337182820	15.54
21092899	626479	316089921	14.99
20466420	634983	295623501	14.44
19831437	639437	275792064	13.91
19192000	613252	256600064	13.37
18548749	656554	235051316	12.83
17892194	691782	220159122	12.30

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twelve Years.

Ages.	Number of Living. $\frac{l_m.\, l_{m_1}}{D_{m,\, m_1}}$	Decrement. $l_m.\, l_{m_1} - l_{m+1} l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\, m_1}$	Curtate Expectation. $\frac{N_{m,\, m_1}}{D_{m,\, m_1}}$
47 & 59	17200412	730409	202958710	11.80
48.. 60	16470003	773385	186488707	11.32
49.. 61	15696618	768803	170792069	10.88
50.. 62	14927815	751231	155864274	10.44
51.. 63	14176584	737116	141687690	9.99
52.. 64	13439468	730670	128248222	9.54
53.. 65	12708798	718956	115539424	9.00
54.. 66	11989842	703559	103549582	8.64
55.. 67	11286283	694283	92263299	8.17
56.. 68	10592000	683900	81671299	7.71
57.. 69	9908100	683458	71763199	7.24
58.. 70	9224642	688169	62538557	6.78
59.. 71	8536473	729524	54002084	6.33
60.. 72	7806949	775512	46195135	5.92
61.. 73	7031437	781242	39163698	5.57
62.. 74	6250195	776295	3.913503	5.27
63.. 75	5473900	712255	27439603	5.01
64.. 76	4761645	660183	22677958	4.76
65.. 77	4101462	591040	18576496	4.53
66.. 78	3510422	514971	15066074	4.29
67.. 79	2995451	471907	12070623	4.03
68.. 80	2523544	410119	9547079	3.78
69.. 81	2113425	372700	7433654	3.52
70.. 82	1740725	322154	5692929	3.27
71.. 83	1418571	284924	4274358	3.01
72.. 84	1133647	244982	3140711	2.77
73.. 85	888665	213018	2252046	2.53
74.. 86	675647	179847	1576399	2.33
75.. 87	495800	144320	1080599	2.18
76.. 88	351480	105501	729119	2.07
77.. 89	245979	73733	483140	1.96
78.. 90	172246	58741	310894	1.91
79.. 91	113505	42030	197389	1.73
80.. 92	71475	26277	125914	1.76
81.. 93	45198	16198	80716	1.79
82.. 94	29000	10310	51716	1.78
83.. 95	18690	6523	33026	1.77
84.. 96	12167	4157	20859	1.71
85.. 97	8010	2872	12849	1.61
86.. 98	5138	1882	7711	1.50
87.. 99	3256	1168	4455	1.37
88..100	2088	821	2367	1.13
89..101	1267	557	1100	.86
90..102	710	395	330	.55
91..103	315	240	75	.24
92..104	75	75		

TABLE XL. 971

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirteen Years.

Ages	Number of Living. $l_m . l_{m_1}$ $D_{m. m_1}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m. m_1}$	Curtate Expectation. $\dfrac{N_{m. m_1}}{D_{m. m_1}}$
0 &13	63680000	10079565	1654690118	25.98
1..14	53600435	4592735	1601089683	29.87
2..15	49007700	3465186	1552081983	31.67
3..16	45542514	2021952	1506539469	33.08
4..17	43520562	1542290	1463018907	33.62
5..18	41978272	1034364	1421040635	33.85
6..19	40943908	786448	1380096727	33.71
7..20	40157460	634268	1339939267	33.37
8..21	39523192	532727	1300416075	32.90
9..22	38990465	469485	1261425610	32.35
10..23	38520980	443029	1222904630	31.75
11..24	38077951	452351	1184826679	31.12
12..25	37625600	461952	1147201079	30.49
13..26	37163648	464993	1110037431	29.86
14..27	36698655	486255	1073338776	29.25
15..28	36212400	537222	1037126376	28.64
16..29	35675178	587580	1001451198	28.07
17..30	35087598	594638	965363600	27.54
18..31	34492960	589736	931870640	27.02
19..32	33903224	578744	897967416	26.49
20..33	33324480	567881	864642936	25.95
21..34	32756599	557789	831886337	25.39
22..35	32198810	553169	799687527	24.84
23..36	31645641	554470	768041886	24.27
24..37	31091171	555645	736950715	23.70
25..38	30535526	561830	706415189	23.13
26..39	29973696	574221	676441493	22.57
27..40	29399475	607743	647042018	22.01
28..41	28791732	643612	618250286	21.47
29..42	28148120	677222	590102166	20.96
30..43	27470898	674068	562631268	20.48
31..44	26796830	665974	535834438	20.00
32..45	26130856	647752	509703582	19.51
33..46	25483104	629908	484220478	19.00
34..47	24853196	611594	459367282	18.48
35..48	24241602	582996	435125680	17.95
36..49	23658606	569959	411467074	17.39
37..50	23088647	557075	388378427	16.82
38..51	22531572	570036	365846855	16.24
39..52	21961536	590711	343885319	15.66
40..53	21370825	618538	322514494	15.09
41..54	20752287	631667	301762207	14.54
42..55	20120620	644620	281641587	14.00
43..56	19476000	648648	262165587	13.47
44..57	18827352	666218	243338235	12.92
45..58	18161134	702041	225177101	12.40

TABLE XL.

Car'is'c Rate of Mortality for Two Joint Lives.
Difference of Age Thirteen Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
46 & 59	17459693	745009	207718003	11.90
47.. 60	16714084	795643	191003921	11.43
48.. 61	15918141	783531	175085483	11.00
49.. 62	15134910	765514	159950573	10.57
50.. 63	14369396	735062	145581177	10.13
51.. 64	13634334	729366	131946843	9.68
52.. 65	12904968	718334	119041875	9.23
53.. 66	12186634	706381	106855241	8.77
54.. 67	11480253	694949	95374988	8.31
55.. 68	10785304	685304	84589634	7.84
56.. 69	10100000	·678473	74489581	7.38
57.. 70	9421524	673290	65068140	6.91
58.. 71	8748234	714127	56319926	6.44
59.. 72	8034107	759036	48285819	6.01
60.. 73	7275071	792910	41010748	5.64
61.. 74	6482161	795536	34528587	5.33
62.. 75	5686625	735605	28841952	5.07
63.. 76	4951020	679683	23890942	4.82
64.. 77	4271337	610503	19619605	4.59
65.. 78	3660834	532420	15958771	4.36
66.. 79	3128414	487651	12830357	4.10
67.. 80	2640763	424387	10189594	3.86
68.. 81	2216376	385751	7973218	3.60
69.. 82	1830625	334802	6142593	3.56
70.. 83	1495823	291290	4646770	3.11
71.. 84	1204533	250893	3442237	2.86
72.. 85	953635	220736	2488602	2.61
73.. 86	732899	187963	1755703	2.40
74.. 87	544935	155336	1210767	2.22
75.. 88	388600	114385	822167	2.13
76.. 89	274215	81237	547952	2.00
77.. 90	192978	65613	354974	1.84
78.. 91	127355	46290	227609	1.79
79.. 92	81075	29613	146534	1.81
80.. 93	51462	17982	95072	1.85
81.. 94	33480	11730	61592	1.84
82.. 95	21750	7421	39842	1.84
83.. 96	14329	4807	25513	1.78
84.. 97	9522	3292	15991	1.68
85.. 98	6230	2193	9761	1.56
86.. 99	4037	1373	5724	1.41
87. 100	2664	1040	3060	1.14
88..101	1624	719	1436	.88
89..102	905	479	531	.58
90..103	426	321	105	
91..104	105	105		

TABLE XL. 973

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Fourteen Years.

Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
63350000	10045700	1626794902	25.68
53304300	4599981	1573490602	29.52
48704319	3467313	1524786283	31.31
45237006	2017358	1479549277	32.71
43219648	1533647	1436329629	33.23
41686001	1029161	1394643628	33.46
40556840	782922	1353986788	33.30
39873918	625238	1314112370	32.96
39248680	530921	1274864110	32.48
38717759	468099	1235146131	31.93
38249660	441811	1197896771	31.32
37807849	457449	1160088922	30.68
37350400	460576	1122738522	30.06
36889824	476244	1085848698	29.44
36413580	516180	1049435118	28.82
35897400	572838	1013537718	28.23
35324562	591417	978213156	27.69
34733115	592187	943480041	27.16
34140928	581152	909339113	26.63
33559776	570246	875779337	26.09
32989530	565516	842789807	25.55
32424014	555479	810365793	24.99
31868535	556622	778497258	24.43
31311713	558039	747185545	23.86
30753674	559130	716431871	23.29
30194544	576844	686237327	22.73
29617700	600563	656619627	22.17
29017137	622017	627602490	21.63
28395120	651558	599207370	21.10
27743562	673246	571463808	20.60
27070316	670021	544393492	20.11
26400295	656399	517993197	19.62
25743896	638360	492249301	19.12
25105536	615279	467143765	18.61
24490257	586461	442653508	18.08
23903796	568917	418749712	17.52
23334879	556041	395414833	16.94
22778838	569294	372635995	16.36
22209544	581848	350426451	15.78
21627696	601971	328798755	15.20
21025725	624068	307773030	14.64
20401657	641657	287371373	14.09
19760000	656044	267611373	13.54
19103956	672040	248505417	13.01
18433916	712393	230071501	12.48
17721523	756072	212349978	11.98

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fourteen Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Certain Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
46 & 60	16965451	811103	195384527	11.52
47.. 61	16154348	805553	179230179	11.09
48.. 62	15348795	780051	163881334	10.68
49.. 63	14568744	748973	149312640	10.25
50.. 64	13819771	727687	135192369	9.80
51.. 65	13092084	717340	122400785	9.35
52.. 66	12374744	706063	110026041	8.89
53.. 67	11668681	698017	98357360	8.43
54.. 68	10976664	686339	87386696	7.97
55.. 69	10284325	680325	77102371	7.50
56.. 70	9604000	669052	67498371	7.03
57.. 71	8934948	701542	58563423	6.55
58.. 72	8233406	746653	50330017	6.11
59.. 73	7486753	779990	42843264	5.72
60.. 74	6706763	809088	36136501	5.39
61.. 75	5897675	754250	30238826	5.13
62.. 76	5143425	702213	25093401	4.88
63.. 77	4441212	628753	20654189	4.65
64.. 78	3312459	550001	16841730	4.42
65.. 79	3262458	504476	13579272	4.16
66.. 80	2757982	438655	10821290	3.93
67.. 81	2319327	399527	8501963	3.67
68.. 82	1919800	346725	6582163	3.43
69.. 83	1573075	302946	5009089	3.19
70.. 84	1270129	256864	3738959	2.94
71.. 85	1013265	226784	2725694	2.69
72.. 86	786481	195369	1939213	2.47
73.. 87	591112	164000	1348101	2.28
74.. 88	427112	123937	920989	2.16
75.. 89	303175	88045	617814	2.04
76.. 90	215130	72435	402684	1.87
77.. 91	142695	51720	259989	1.82
78.. 92	90975	32601	169014	1.85
79.. 93	58374	20254	110640	1.89
80.. 94	38120	13010	72520	1.90
81.. 95	25110	8435	47410	1.89
82.. 96	16675	5461	30735	1.84
83.. 97	11214	3808	19521	1.74
84.. 98	7406	2511	12115	1.63
85.. 99	4895	1592	7220	1.47
86..100	3303	1231	3917	1.18
87..101	2072	912	1845	.88
88..102	1160	617	685	.59
89..103	543	401	142	.26
90..104	142	142		

TABLE XL. 975

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Fifteen Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
63000000	10025679	1598624619	25.37
52974321	4596720	1545650298	29.18
48377601	3453377	1497272697	30.95
44924224	2005490	1452348473	32.33
42918734	1525004	1409429739	32.84
41393730	1023958	1366036069	▮▮.▮▮
40369772	772802	1327666237	32.89
39596970	622802	1288069267	32.53
38974168	529115	1249095099	32.05
38445053	466713	1210650046	31.49
37978340	447024	1172671706	30.88
37531316	456116	1135140390	30.24
37075200	471936	1098065190	29.62
36603264	506434	1061461926	29.00
36096830	552230	1025385096	28.41
35544600	576915	989820496	27.85
34967685	589053	954852811	27.31
34376632	583560	920474179	26.77
33795072	572611	886679107	26.24
33222461	567881	853456646	25.69
32654580	563151	820802066	25.14
32091429	559174	788710637	24.58
31532255	560433	757178382	24.01
30971822	561566	726206560	23.45
30410256	574331	695796304	22.88
29835925	603401	▮▮▮▮▮▮▮	22.32
29232524	615104	636727855	21.78
28617420	630408	608110435	21.25
27987012	648008	580123423	20.73
27339004	669270	552784419	20.22
26669734	660389	526114685	19.73
26009345	646881	500105340	19.23
25362464	623552	474742876	18.72
24738912	589926	450003964	18.19
24148986	572273	425854978	17.63
23576714	554948	402278264	17.06
23021766	568490	379256498	16.47
22453276	581342	356803222	15.89
21871934	593486	334931256	15.31
21278448	607973	313652840	14.74
20670475	634475	292982365	14.17
20036000	651440	272946365	13.62
19384560	677862	253561805	13.08
18706698	718996	234855107	12.55
17987702	767241	216867405	12.06
17220461	823164	199646944	11.50

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifteen Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
46 & 61	16397297	821037	183249647	11.18
47 .. 62	15576260	801632	167673387	10.77
48 .. 63	14774628	763134	152898759	10.35
49 .. 64	14011494	741318	138857265	9.91
50 .. 65	13270146	715974	125617119	9.46
51 .. 66	12554172	705376	113062947	9.01
52 .. 67	11848796	698068	101214151	8.54
53 .. 68	11150728	689653	90063423	8.09
54 .. 69	10461075	681802	79602348	7.61
55 .. 70	9779273	671273	69823075	7.14
56 .. 71	9108000	698868	60715075	6.67
57 .. 72	8409132	736658	52305943	6.23
58 .. 73	7672474	770565	44633469	5.82
59 .. 74	6901909	799884	37731560	5.47
60 .. 75	6102025	767710	31629535	5.18
61 .. 76	5334315	720510	26295230	4.93
62 .. 77	4613805	649721	21631415	4.70
63 .. 78	3964084	566501	17717331	4.47
64 .. 79	3397583	521429	14319748	4.21
65 .. 80	2876154	453876	11443591	3.98
66 .. 81	2422278	413303	9021316	3.73
67 .. 82	2008975	359271	7012341	3.49
68 .. 83	1649704	313979	5362637	3.25
69 .. 84	1335725	267280	4026912	3.01
70 .. 85	1068445	232786	2958467	2.77
71 .. 86	835659	201331	2122808	2.54
72 .. 87	634328	171024	1488480	2.35
73 .. 88	463304	130083	1025176	2.21
74 .. 89	333221	95371	691955	2.08
75 .. 90	237850	78775	454105	1.91
76 .. 91	159075	57150	295030	1.85
77 .. 92	101925	36423	193105	1.89
78 .. 93	65502	22262	127693	1.95
79 .. 94	43240	14650	84363	1.95
80 .. 95	28590	9339	55773	1.95
81 .. 96	19251	6201	36522	1.90
82 .. 97	13050	4328	23472	1.80
83 .. 98	8722	2903	14750	1.69
84 .. 99	5819	1814	8931	1.53
85 ..100	4005	1436	4926	1.23
86 ..101	2569	1089	2357	.92
87 ..102	1480	784	877	.59
88 ..103	696	515	181	.26
89 ..104	181	181		

TABLE XL. 977

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixteen Years.

Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
62616000	9991041	1570224017	25.06
52618959	4575855	1517605058	28.84
48043104	3431662	1469561954	30.59
44611442	1993622	1424950512	31.94
42617820	1516361	1382332692	32.43
41101459	1012079	1341231233	32.63
40089380	769358	1301141052	32.46
39320022	620366	1261821831	32.09
38699656	527309	1223122175	31.60
38172347	471787	1184949828	31.04
37700560	445777	1147249268	30.43
37254783	467583	1109994485	29.79
36787200	502336	1073207285	29.17
36284864	542794	1036922421	28.58
35742070	556570	1001180351	28.01
35185500	574692	965994851	27.45
34610808	580440	931384043	26.91
34030368	574976	897353675	26.37
33455392	570246	863898283	25.82
32885146	565516	831013137	25.27
32319630	566833	798693507	24.71
31752797	562827	766940710	24.16
31189970	564002	735750740	23.59
30625968	576893	705124772	23.02
30049075	601164	675075697	22.46
29447911	618071	645627786	21.92
28829840	623723	616797946	21.39
28206117	627213	588591829	20.87
27578904	644458	561012925	20.34
26934446	659652	534078479	19.82
26274794	650814	507803685	19.33
25623980	631892	482179705	18.82
24992088	597912	457187617	18.29
24394176	575627	432793441	17.74
23818549	558193	408974692	17.17
23260356	567624	385714308	16.58
22692732	580771	363021804	16.00
22111961	593219	340909843	15.41
21518742	599814	319391101	14.84
20918928	618928	298472173	14.27
20300000	644684	278172173	13.70
19655316	675836	258516857	13.15
18979480	725599	239537377	11.00
18253881	774767	221283496	12.12
17479114	835347	203004382	11.66

TABLE XL.
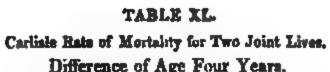
Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixteen Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
45 & 61	16643767	833252	187160615	11.25
46 .. 62	15810515	816931	171350100	10.84
47 .. 63	14993584	784081	156356516	10.43
48 .. 64	14209503	755259	142147013	10.00
49 .. 65	13454244	729326	128692769	9.56
50 .. 66	12724918	704320	115967851	9.11
51 .. 67	12020598	697750	103947253	8.65
52 .. 68	11322848	690073	92624405	8.18
53 .. 69	10632775	685432	81991630	7.71
54 .. 70	9947343	673122	72044287	7.24
55 .. 71	9274221	702221	62770066	6.77
56 .. 72	8572000	735772	54198066	6.32
57 .. 73	7836228	763106	46361838	5.92
58 .. 74	7073122	793547	39288716	5.55
59 .. 75	6279575	760430	33009141	5.26
60 .. 76	5519145	734106	27489996	4.98
61 .. 77	4785039	666904	22704957	4.75
62 .. 78	4118135	585427	18586822	4.51
63 .. 79	3532708	537429	15054114	4.26
64 .. 80	2995279	469213	12058835	4.03
65 .. 81	2526066	427916	9532769	3.77
66 .. 82	2098150	371817	7434619	3.54
67 .. 83	1726333	325541	5708286	3.31
68 .. 84	1400792	277167	4307494	3.07
69 .. 85	1123625	242458	3183869	2.83
70 .. 86	881167	207175	2302702	2.61
71 .. 87	673992	176816	1628710	2.42
72 .. 88	497176	135719	1131534	2.28
73 .. 89	361457	100035	770077	2.13
74 .. 90	261422	85547	508655	1.95
75 .. 91	175875	62250	332780	1.89
76 .. 92	113625	40239	219155	1.93
77 .. 93	73386	24866	145769	1.99
78 .. 94	48520	16090	97249	2.00
79 .. 95	32430	10511	64819	2.00
80 .. 96	21919	6853	42900	1.96
81 .. 97	15066	4916	27834	1.85
82 .. 98	10150	3297	17684	1.74
83 .. 99	6853	2092	10831	1.58
84 ..100	4761	1646	6070	1.28
85 ..101	3115	1280	2955	.95
86 ..102	1835	947	1120	.61
87 ..103	888	656	232	.26
88 ..104	232	232		

TABLE XL. 970

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventeen Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
62190000	9934864	1541631537	24.79
52255136	4546529	1489376401	28.50
47708607	3409947	1441667797	30.22
44298660	1981754	1397369137	31.54
42316906	1500921	1355052231	32.02
40815985	1006997	1314236246	32.20
39808988	765914	1274427258	32.01
39043074	617930	1235384184	31.64
38425144	531996	1196959040	31.15
37893148	470368	1159065892	30.50
37422780	457392	1121643113	29.97
36965388	498168	1084677724	29.35
36467200	538944	1048210524	28.74
35928256	547281	1012282268	28.18
35380975	554575	976901293	27.61
34826400	566208	942074893	27.05
34260192	571869	907814701	26.50
33688323	572611	874126378	25.95
33115712	567581	841010666	25.40
32547631	569241	808462835	24.84
31978590	570472	776484245	24.28
31408118	566438	745076127	23.72
30841680	579455	714234447	23.16
30262225	603936	683972222	22.60
29658289	616029	654313933	22.06
29042260	626776	625271673	21.53
28415484	620670	596856189	21.00
27794814	624018	569061375	20.47
27170796	635210	541890579	19.94
26535586	650090	515354993	19.43
25885496	635711	489469497	18.90
25249785	605961	464219712	18.39
24643824	583440	439575888	17.84
24060384	561438	415515504	17.27
23498946	571034	392016558	16.41
22927912	580135	369088646	16.10
22347777	592884	346740869	15.51
21754893	599731	324985976	14.94
21155162	611162	303830814	14.35
20544000	629700	283286814	13.79
19914300	669722	263372514	10.11
19244578	724518	244127936	17.60
18520060	762293	225607876	12.18
17737767	844009	207870109	11.72
16893758	845593	190976351	11.30

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventeen Years.

Ages.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}'	Decrement. $l_m. l_{m_1} - l_{m+1} l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expecta.[tn] $\frac{N_{m, m_1} - \frac{1}{2}}{D_{m, m_1}}$
45 & 62	16048165	829089	174928186	10.90
46.. 63	15219076	798992	159709110	10.49
47.. 64	14420084	775706	145289026	10.07
48.. 65	13644378	742926	131644648	9.64
49.. 66	12901452	717365	118743196	9.20
50.. 67	12184087	697063	106559109	8.75
51.. 68	11487024	690124	95072085	8.28
52.. 69	10796900	686289	84275185	7.81
53.. 70	10110611	677000	74164574	7.34
54.. 71	9433611	705172	64730963	6.86
55.. 72	8728439	740439	56002524	6.42
56.. 73	7988000	763916	48014524	6.01
57.. 74	7224084	788734	40790440	5.65
58.. 75	6435350	755615	34355090	5.34
59.. 76	5679735	728898	28675355	5.05
60.. 77	4950837	679864	23724518	4.79
61.. 78	4270973	600978	19453545	4.56
62.. 79	3669995	555591	15783550	4.30
63.. 80	3114404	483713	12669146	4.07
64.. 81	2630691	442641	10038455	3.82
65.. 82	2188050	385088	7850405	3.59
66.. 83	1802962	337103	6047443	3.35
67.. 84	1465859	287499	4581584	3.13
68.. 85	1178360	251685	3403214	2.89
69.. 86	926675	215979	2476549	2.67
70.. 87	710696	182432	1765853	2.48
71.. 88	528264	140381	1237589	2.34
72.. 89	387883	104309	849706	2.19
73.. 90	283574	90269	566132	2.00
74.. 91	193305	67680	372827	1.93
75.. 92	125625	43815	247202	1.97
76.. 93	81810	27450	165392	2.02
77.. 94	54360	17970	111032	2.04
78.. 95	36390	11527	74642	2.05
79.. 96	24863	7709	49779	2.00
80.. 97	17154	5436	32625	1.90
81.. 98	11718	3743	20907	1.78
82.. 99	7975	2368	12932	1.62
83..100	5607	1904	7325	1.30
84..101	3703	1478	3622	.98
85..102	2225	1124	1397	.63
86..103	1101	805	296	.27
87..104	296	296		

TABLE XL.

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighteen Years.

Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
61760000	9868687	1512869531	24.50
51891313	4517203	1460978218	28.15
47374110	3388232	1413604108	29.84
43985878	1962888	1369618230	31.14
42022990	1492479	1327595240	31.59
40530511	1001915	1287064729	31.75
39528596	762470	1247536133	31.56
38766126	622030	1208770007	31.18
38144096	530147	1170625911	30.69
37613949	481869	1133011962	30.12
37132080	488242	1095879882	29.51
36643838	535038	1059236044	28.91
36108800	543520	1023127244	28.33
35565280	545400	987561964	27.76
35019880	546280	952542084	27.20
34173600	557763	918068484	26.63
33915837	569559	884152647	26.07
33346278	570246	850806369	25.51
32776032	571649	818030337	24.96
32204383	572923	785825954	24.40
31631460	574068	754194494	23.84
31057392	582017	723137102	23.29
30475375	606708	692661727	22.73
29868667	618927	662793060	22.19
29249740	624889	633543320	21.66
28624851	623723	604918469	21.13
28001128	617617	576917341	20.60
27383511	615075	549533830	20.07
26768436	626012	522765394	19.53
26142424	634942	496622970	19.00
25507482	609552	471115488	18.47
24897930	591314	446217558	17.92
24306616	569080	421910942	17.36
23737536	574444	398173406	16.77
23163092	583710	375010314	16.19
22579382	592481	352430932	15.61
21986901	599578	330444031	15.03
21387323	611323	309056708	14.45
20776000	622336	288280708	13.87
20153664	655514	268127044	13.30
19498150	719409	248628694	12.75
18778741	782321	229850153	12.24
17996420	852671	211853733	11.77
17143749	854539	194709984	11.36

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighteen Years.

Ages.	Number of Living. $l_m.\ l_{m_1}$ $D_{m,\ m1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\ m_1}$	Curtate Expectation. $\dfrac{N_{m,\ m_1}}{D_{m,\ m_1}}$
44 & 62	16289210	841374	178420774	10.95
45.. 63	15447836	810885	162972938	10.55
46.. 64	14636951	790367	148335987	10.13
47.. 65	13846584	762810	134489403	9.71
48.. 66	13083774	730656	121405629	9.27
49.. 67	12353118	709862	109052511	8.83
50.. 68	11643256	689806	97409255	8.37
51.. 69	10953450	686774	86455805	7.89
52.. 70	10266676	678229	76189129	7.42
53.. 71	9588447	709998	66600682	6.95
54.. 72	8878449	744668	57722233	6.50
55.. 73	8133781	769781	49588452	6.10
56.. 74	7364000	791300	42224452	5.73
57.. 75	6572700	752070	35651752	5.42
58.. 76	5820630	725739	29831122	5.13
59.. 77	5094891	675932	24736231	4.86
60.. 78	4418959	612758	20317272	4.60
61.. 79	3806201	570766	16511071	4.34
62.. 80	3235435	500119	13275636	4.10
63.. 81	2735316	456641	10540320	3.85
64.. 82	2278675	398461	8261645	3.63
65.. 83	1880214	349288	6381431	3.39
66.. 84	1530926	297831	4850505	3.17
67.. 85	1233095	261279	3617410	2.93
68.. 86	971816	224416	2645594	2.72
69.. 87	747400	190368	1898194	2.54
70.. 88	557032	144895	1341162	2.41
71.. 89	412137	107831	929025	2.25
72.. 90	304306	94621	624719	2.05
73.. 91	209685	71610	415034	1.98
74.. 92	138075	47625	276959	2.01
75.. 93	90450	29850	186509	2.06
76.. 94	60600	19830	125909	2.08
77.. 95	40770	12871	85139	2.09
78.. 96	27899	8441	57240	2.05
79.. 97	19458	6116	37782	1.94
80.. 98	13342	4135	24440	1.83
81.. 99	9207	2682	15233	1.65
82..100	6525	2164	8708	1.33
83..101	4361	1716	4347	1.00
84..102	2645	1310	1702	.64
85..103	1335	968	367	.28
86..104	367	367		

TABLE XL. 444

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Nineteen Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\frac{N_{m, m_1}}{D_{m, m_1}}$
61330000	9802510	1483951739	24.20
51527490	4487877	1432424249	27.80
47039613	3359243	1385384636	29.45
43680370	1951296	1341704266	30.72
41729074	1484037	1299975192	31.15
40245037	996833	1259730155	31.30
39248204	765620	1220481951	31.10
38482584	619536	1181999367	30.72
37863048	541284	1144136319	30.19
37321764	512684	1106814555	29.66
36809080	525378	1070005475	29.07
36283702	539702	1033721773	28.49
35744000	541696	997977773	27.92
35202304	537184	962775469	27.35
34665120	538020	928110349	26.77
34127100	555618	693983249	26.20
33571482	567249	660411767	25.63
33004233	574057	827407534	25.07
32430176	577374	794977358	24.51
31854802	574562	763122556	23.96
31278240	589715	731844316	23.40
30688525	609480	701155791	22.85
30079045	621825	671076746	22.31
29457220	627871	641619526	21.78
28829349	621907	612790177	21.26
28.07442	620670	584582735	20.72
27586772	608771	556995963	20.19
26978001	606177	530017962	19.65
26371824	611166	503646138	19.10
25760658	608622	477005480	18.55
25152036	594791	452733444	18.00
24557245	576781	428176199	17.44
23980464	582192	404195735	16.86
23398272	587285	380797463	16.28
22810987	596221	357985476	15.69
22214766	599355	335771710	15.11
21615411	611411	314156299	14.53
21004000	622744	293152299	13.95
20381256	648744	272771043	13.36
19732512	706337	253038531	12.89
19026175	778388	234012356	12.30
18247787	854047	215764569	11.82
17393740	863485	198370829	11.40
16530255	1103021	181840574	11.00

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Nineteen Years.

Ages.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 63	15679864	822903	166160710	10.60
45.. 64	14856961	802135	151303749	10.18
46.. 65	14054826	777154	137248923	9.77
47.. 66	13277672	749981	123971251	9.34
48.. 67	12527691	722907	111443560	8.90
49.. 68	11804784	702359	99638776	8.44
50.. 69	11102425	686887	88536351	7.97
51.. 70	10415538	679086	78120813	7.50
52.. 71	9736452	712279	68384361	7.02
53.. 72	9024173	750602	59360188	6.58
54.. 73	8273571	775178	51086617	6.17
55.. 74	7498393	798393	43588224	5.81
56.. 75	6700000	755140	36888224	5.51
57.. 76	5944860	723582	30943364	5.21
58.. 77	5221278	673741	25722086	4.93
59.. 78	4547537	609454	21174549	4.66
60.. 79	3938083	582570	17236466	4.38
61.. 80	3355513	513898	13830953	4.14
62.. 81	2841615	472315	11039338	3.89
63.. 82	2369300	411211	8670038	3.66
64.. 83	1958089	361567	6711949	3.43
65.. 84	1596522	308692	5115427	3.20
66.. 85	1287830	270873	3827597	2.97
67.. 86	1016957	233149	2810640	2.76
68.. 87	783808	198008	2026832	2.59
69.. 88	585800	151219	1441032	2.46
70.. 89	434581	111247	1006451	2.31
71.. 90	323334	98319	683117	2.11
72.. 91	225015	75240	458102	2.04
73.. 92	149775	50361	308327	2.06
74.. 93	99414	32414	208913	2.10
75.. 94	67000	21550	141913	2.12
76.. 95	45450	14193	96463	2.12
77.. 96	31257	9423	65206	2.09
78.. 97	21834	6700	43372	1.99
79.. 98	15134	4651	28238	1.87
80.. 99	10483	2950	17755	1.69
81..100	7533	2458	10222	1.36
82..101	5075	1960	5147	1.01
83..102	3115	1528	2032	.65
84..103	1587	1142	445	.23
85..104	445	445		

TABLE XL.   446

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Twenty Years.

.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
20	60900000	9736333	1454891738	23.89
21	51163667	4450772	1403728071	27.44
22	46712895	3338033	1357015176	29.05
23	43374862	1939704	1313640314	30.18
24	41435158	1475595	1272205156	30.70
25	39959563	998427	1232245593	30.84
26	38961136	762094	1193284457	30.63
27	38199042	630114	1155085415	30.24
28	37568928	571814	1117516487	29.75
29	36997114	549794	1080519373	29.21
30	36447320	530185	1044072053	28.55
31	35917135	537935	1008154918	28.07
32	35379200	533504	972775718	27.50
33	34845696	529001	937930022	26.92
34	34316695	536095	903613327	26.33
35	33780600	553473	869832727	25.75
36	33227127	571158	836605600	25.18
37	32655969	577825	803949631	24.62
38	32078144	579056	771871487	24.06
39	31499088	592338	740372399	23.50
40	30906750	617327	709465649	22.95
41	30289423	624723	679176226	22.42
42	29664700	630853	649511526	21.90
43	29033847	624869	620477679	21.37
44	28408958	618925	592068721	20.84
45	27790033	611781	564278688	20.30
46	27178252	599968	537100436	19.76
47	26578284	591576	510522152	19.21
48	25986708	585024	484535444	18.65
49	25401684	593810	459133760	18.07
50	24807874	580144	434325886	17.51
51	24227730	590002	410098156	16.93
52	23637728	595136	386460428	16.35
53	23042592	599961	363417836	15.77
54	22442631	603205	340975205	15.19
55	21839426	611426	319135779	14.61
56	21228000	623076	297907779	14.03
57	20604924	649576	277302855	13.46
58	19955348	700484	257347507	12.90
59	19254864	766639	238092643	12.36
60	18488225	851536	219604418	11.88
61	17636689	865389	201967729	11.45
62	16771300	859408	185196429	11.04
63	15911892	831778	169284537	10.64

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty Years.

Ages.	Number of Living. $l_m.l_{m_1}$ $D_{m.\,m_1}$	Decrement. $l_m.l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\,m_1}$	Care Expect. $\frac{N_{m,\,m_1}}{D_{m,\,m_1}}$
44.. 64	15080114	814028	154204423	10.23
45.. 65	14266086	788728	139938337	9.81
46.. 66	13477358	764010	126460979	9.38
47.. 67	12713348	741740	113747631	8.95
48.. 68	11971608	715158	101776023	8.50
49 & 69	11256450	699253	90519573	8.04
50.. 70	10557197	679571	79962376	7.37
51.. 71	9877626	714158	70084750	7.10
52.. 72	9163468	754101	60921282	6.65
53.. 73	8409367	782104	52511915	6.24
54.. 74	7627263	804988	44884652	5.88
55.. 75	6822275	762275	38062377	5.58
56.. 76	6060000	727284	32002377	5.28
57.. 77	5332716	672370	26669661	5.00
58.. 78	4660346	607677	22009315	4.72
59.. 79	4052669	580890	17956646	4.43
60.. 80	3471779	524702	14484867	4.17
61.. 81	2947077	485702	11537790	3.93
62.. 82	2461375	425411	9076415	3.69
63.. 83	2035964	373317	7040451	3.46
64.. 84	1662647	319637	5377804	3.23
65.. 85	1343010	280912	4034794	3.00
66.. 86	1062098	241882	2972696	2.80
67.. 87	820216	205880	2152480	2.62
68.. 88	614336	157311	1538144	2.50
69.. 89	457025	116083	1081119	2.37
70.. 90	340942	101857	740177	2.17
71.. 91	239085	78360	501092	2.10
72.. 92	160725	52887	340367	2.12
73.. 93	107838	34198	232529	2.16
74.. 94	73640	23390	158889	2.16
75.. 95	50250	15405	108639	2.16
76.. 96	34845	10383	73794	2.12
77.. 97	24462	7480	49332	2.01
78.. 98	16982	5091	32350	1.90
79.. 99	11891	3314	20459	1.72
80..100	8577	2718	11882	1.38
81..101	5859	2234	6023	1.03
82..102	3625	1756	2398	.67
83..103	1869	1340	529	.28
84..104	529	529		

TABLE XL. 987

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-One Years.

Number of Living. $L_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $L_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
60470000	9661695	1425702778	23.58
50808305	4422128	1374894473	27.06
46386177	3316823	1328508296	28.64
43069354	1928112	1285438942	29.85
41141242	1473950	1244297700	30.24
39667292	993224	1204630408	30.37
38674068	771756	1165956340	30.15
37902312	660184	1128054028	29.76
37242128	608622	1090811900	29.29
36633506	554406	1054178394	28.78
36079100	528532	1018099294	28.22
35550568	529768	982548726	27.64
35020800	525344	947527926	27.06
34495456	527186	913032470	26.47
33968270	534170	879064200	25.88
33434100	557589	845630100	25.29
32876511	575025	812753589	24.72
32301486	581550	780452103	24.16
31719936	594961	748732167	23.60
31124975	620165	717607192	23.06
30504810	632630	687102382	22.52
29872180	633835	657230202	22.00
29238345	627871	627991857	21.48
28610474	621907	599381383	20.95
27988567	610064	571392816	20.42
27378503	602935	544014313	19.87
26775568	585415	517238745	19.32
26190153	565569	491048592	18.75
25624584	570478	465424008	18.16
25054106	579110	440369902	17.58
24474996	593536	415894906	16.99
23881460	603052	392013446	16.41
23278408	607912	368735038	15.84
22670496	607055	346064542	15.27
22063441	615441	324001101	14.68
21448000	623332	302553101	14.11
20824668	650326	281728433	13.53
20174342	702036	261554091	12.96
19472306	761858	242081785	12.43
18710448	841373	223371337	11.94
17869075	863520	205502262	11.50
17005555	861635	188496707	11.08
16143920	840653	172352787	10.68
15303267	822903	157049520	10.26

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-One Years.

Ages.	Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
41 & 65	14480364	800426	142569156	9.85
45 .. 66	13679938	775391	128889218	9.42
46 .. 67	12904547	755523	115984671	8.99
47 .. 68	12149024	733499	103835647	8.55
48 .. 69	11415525	711867	92420122	8.10
49 .. 70	10703658	691689	81716464	7.63
50 .. 71	10011969	715635	71704495	7.16
51 .. 72	9296334	757162	62408161	6.71
52 .. 73	8539172	786721	53868989	6.31
53 .. 74	7752451	812926	46116538	5.95
54 .. 75	6939525	768930	39177013	5.65
55 .. 76	6170595	734595	33006418	5.35
56 .. 77	5436000	676188	27570418	5.07
57 .. 78	4759812	606610	22810606	4.79
58 .. 79	4153202	580405	18657404	4.49
59 .. 80	3572797	523606	15084607	4.22
60 .. 81	3049191	496466	12035416	3.95
61 .. 82	2552725	437640	9482691	3.72
62 .. 83	2115085	386313	7367606	3.48
63 .. 84	1728772	330137	5638834	3.26
64 .. 85	1398635	291029	4240199	3.03
65 .. 86	1107606	250982	3132593	2.83
66 .. 87	856624	213752	2275969	2.66
67 .. 88	642872	163584	1633097	2.54
68 .. 89	479288	120738	1153809	2.41
69 .. 90	358550	106445	795259	2.22
70 .. 91	252105	81330	543154	2.15
71 .. 92	170775	55053	372379	2.19
72 .. 93	115722	35842	256657	2.22
73 .. 94	79880	24650	176777	2.21
74 .. 95	55230	16705	121547	2.20
75 .. 96	38525	11255	83022	2.16
76 .. 97	27270	8244	55752	2.04
77 .. 98	19026	5683	36726	1.93
78 .. 99	13343	3614	23383	1.75
79 ..100	9729	3058	13654	1.40
80 ..101	6671	2486	6983	1.04
81 ..102	4185	2010	2798	.67
82 ..103	2175	1552	623	.23
83 ..104	623	623		

TABLE XL. 869

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Two Years.

Number of Living. $l_m.\ l_{m1}$ $D_{m,\ m1}$	Decrement. $l_m.l_{m1} - l_{m+1}.l_{m1+1}$	Sum of Living at Higher Ages. $N_{m,\ m1}$	Curtate Expectation. $\dfrac{N_{m,\ m1}}{D_{m,\ m1}}$
60050000	9597057	1396385202	23.25
50452943	4393484	1345935259	26.67
46059459	3295613	1299875600	28.22
42763846	1923518	1257111954	29.40
40840328	1465307	1216271626	29.78
39375021	1001373	1176896605	29.89
38373648	801036	1138522957	29.67
37572612	696500	1100950345	29.30
36876112	612707	1064074233	29.85
36263405	552525	1027810828	28.34
35710880	520448	992099948	27.78
35190432	521632	956909516	27.19
34668800	523584	922240716	26.60
34145216	525371	888095500	26.01
33619845	538545	854475660	25.43
33081300	561666	821394360	24.83
32519634	578850	788874726	24.26
31940784	597584	756933942	23.70
31343200	623003	725590742	23.15
30720197	635397	694870545	22.62
30084600	641757	664785945	22.10
29442843	630853	635343102	21.58
28811990	624889	606531112	21.06
28187101	613004	578344011	20.52
27574097	601245	550769914	19.97
26972852	588296	523797062	19.42
26384556	559362	497412506	18.85
25825194	551238	471587312	18.26
25273956	556032	446313356	17.66
24717924	592732	421595432	17.06
24125192	606757	397470240	16.48
23518435	615931	373951805	15.90
22902504	615048	351049301	15.33
22287456	619456	328761845	14.75
21668000	627512	307093845	14.17
21040488	650994	286053357	13.59
20389494	703495	265663863	13.03
19685999	764257	245977864	12.49
18921742	837886	227056122	12.00
18083856	854231	208972266	11.56
17229625	860213	191742641	11.13
16369412	842992	175373229	10.71
15526420	831778	159846509	10.30
14694642	809230	145153167	9.88

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Two Years.

Ages.	Number of Living. $l_m . l_{m1}$ D_{m,m_1}	Decrement. $l_m . l_{m1} - l_{m+1} . l_{m1+1}$	Sum of Living at Higher Ages. $N_{m,m1}$	Certain Expectation. $\dfrac{N_{m,m1}}{D_{m,m1}}$
44 & 66	13885412	786895	131266755	9.45
45.. 67	13098517	766781	118168238	9.02
46.. 68	12331736	747036	105836502	8.58
47.. 69	11584700	729779	94251802	8.14
48.. 70	10854921	704055	83396881	7.63
49.. 71	10150866	728095	73246015	7.23
50.. 72	9422771	759785	63823244	6.77
51.. 73	8662986	790870	55160258	6.37
52.. 74	7872116	818691	47285142	6.01
53.. 75	7053425	776780	40234717	5.70
54.. 76	6276645	741438	33958072	5.41
55.. 77	5535207	683207	28422565	5.14
56.. 78	4852000	610156	23570865	4.86
57.. 79	4241844	580418	19320021	4.56
58.. 80	3661426	523513	15667595	4.38
59.. 81	3137913	496738	12529682	3.99
60.. 82	2641175	447592	9888507	3.74
61.. 83	2193583	397628	7694924	3.51
62.. 84	1795955	341695	5698969	3.28
63.. 85	1454260	300779	4444709	3.06
64.. 86	1153481	260153	3291228	2.85
65.. 87	893328	221920	2397900	2.69
66.. 88	671408	169857	1726492	2.57
67.. 89	501551	125535	1224941	2.44
68.. 90	376016	110891	848925	2.26
69.. 91	265125	85050	583800	2.20
70.. 92	180075	57117	403725	2.24
71.. 93	122958	37238	280767	2.28
72.. 94	85720	25810	195047	2.30
73.. 95	59910	17567	135137	2.26
74.. 96	42343	12193	92794	2.19
75.. 97	30150	8940	62644	2.08
76.. 98	21210	6261	41434	1.95
77.. 99	14949	4032	26485	1.77
78..100	10917	3350	15568	1.43
79..101	7567	2802	8001	1.06
80..102	4765	2254	3236	.69
81..103	2511	1786	725	.29
82..104	725	725		

TABLE XL. 451

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Three Years.

Number of Living. l_m, l_{m1} / $D_{m, m1}$	Decrement. $l_m\ l_{m1} - l_{m+1}, l_{m1+1}$	Sum of Living at Higher Ages. $N_{m, m1}$	Curtate Expectation. $N_{m, m1}$ / $D_{m, m1}$
59630000	9532419	1366958995	22.92
50097581	4864840	1316861414	26.29
45732741	3281677	1271128673	27.79
42451064	1911650	1228677609	28.94
40539414	1470258	1188138195	29.31
39069156	1029308	1149069039	29.41
38039848	836500	1111029191	29.21
37203348	699788	1073825843	28.86
36503560	610256	1037322283	28.42
35893304	544184	1001428979	27.90
35349120	512393	966079859	27.33
34836727	519927	931243132	26.73
34316800	521824	896926332	26.14
33794976	529891	863131356	25.54
33265085	542885	829866271	24.95
32722200	565704	797144071	24.36
32156496	595071	764987575	23.79
31561425	625841	733426150	23.24
30935584	638564	702490566	22.71
30297020	644810	672193546	22.18
29652210	636704	642541336	21.67
29015506	627871	613527830	21.15
28387635	615944	585142195	20.61
27769691	604143	557372504	20.07
27165548	586589	530206956	19.52
26578959	562071	503627997	18.95
26016888	545067	477611109	18.36
25471821	536997	452139288	17.75
24934824	570176	427204464	17.13
24364648	606186	402839816	16.53
23758462	615807	379081354	15.96
23138655	623111	355942699	15.38
22515544	627544	333427155	14.81
21888000	631692	311539155	14.23
21256308	655504	290282847	13.66
20600804	704861	269682043	13.09
19895943	766550	249786100	12.55
19129393	841319	230656707	12.06
18248074	851354	212368633	11.61
17436720	851620	194931913	11.18
16585100	841813	178346813	10.75
15743287	834367	162603526	10.33
14908920	818034	147694606	9.91
14090886	795628	133603720	9.48

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Three Years.

Ages.	Number of Living. $l_m.\ l_{m_1}$ $D_{m,\ m_1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\ m_1}$	Carlisle Expectation. $\frac{N_{m,\ m_1}}{D_{m,\ m_1}}$
44 & 67	13295258	778162	120308462	9.05
45 .. 68	12517096	758171	107791366	8.61
46 .. 69	11758925	743137	96032441	8.17
47 .. 70	11015788	721471	85016653	7.72
48 .. 71	10294317	740823	74722336	7.36
49 .. 72	9553494	772685	65168842	6.82
50 .. 73	8780809	794551	56385033	6.42
51 .. 74	7986258	823958	48401775	6.06
52 .. 75	7162300	782635	41239475	5.76
53 .. 76	6379665	749328	34859810	5.46
54 .. 77	5630337	689788	29229473	5.19
55 .. 78	4940549	616549	24288924	4.93
56 .. 79	4324000	584428	19964924	4.62
57 .. 80	3739572	523818	16225352	4.34
58 .. 81	3215754	497729	13009598	4.04
59 .. 82	2718025	448436	10291573	3.79
60 .. 83	2269589	406980	8021984	3.53
61 .. 84	1862609	351834	6159375	3.31
62 .. 85	1510775	311419	4648600	3.08
63 .. 86	1199356	269028	3449246	2.88
64 .. 87	930328	230152	2518918	2.71
65 .. 88	700176	176362	1818742	2.60
66 .. 89	523814	130332	1294928	2.47
67 .. 90	393482	115442	901446	2.39
68 .. 91	278040	88665	623406	2.24
69 .. 92	189375	59721	434031	2.29
70 .. 93	129654	38574	304377	2.35
71 .. 94	91080	26790	213297	2.34
72 .. 95	64290	18359	149007	2.33
73 .. 96	45931	12793	103076	2.24
74 .. 97	33138	9688	69938	2.11
75 .. 98	23450	6785	46488	1.98
76 .. 99	16665	4434	29823	1.79
77 ..100	12231	3740	17592	1.43
78 ..101	8491	3086	9101	1.07
79 ..102	5405	2546	3696	.68
80 ..103	2859	2022	837	.29
81 ..104	837	837		

TABLE XL. 963

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Four Years.

Number of Living. $l_{m_1} l_{m_2}$ $D_{m_1 m_1}$	Decrement. $l_{m_1} l_{m_2} - l_{m+1} l_{m_2+1}$	Sum of Living at Higher Ages. $N_{m_1 m_1}$	Carlisle Expectation. $\dfrac{N_{m_1 m_1}}{D_{m_1 m_1}}$
59210000	9467781	1337424843	22.59
49742219	4343975	1267682624	25.89
45398244	3259962	1242784380	27.36
42138282	1913778	1200146098	28.48
40224504	1495198	1159921594	28.84
38729306	1063314	1121192268	28.95
37665992	838502	1083526296	28.77
36827490	696482	1046698806	28.42
36131008	601312	1010567798	27.97
35529696	535876	975038102	27.44
34993820	510798	940044282	26.86
34483022	518222	905561203	26.26
33964800	526432	871596460	25.66
33438368	534378	838158092	25.07
32903990	547190	805254102	24.47
32356800	582225	772897302	23.89
31774575	623604	741122727	23.32
31150971	641531	709971756	22.79
30509440	647863	679462316	22.27
29861577	641757	649600739	21.75
29219820	635651	620380919	21.23
28584169	618884	591796750	20.70
27965285	607041	563831465	20.16
27358244	589403	536473221	19.61
26768841	560259	509704380	19.04
26208582	547690	493495798	18.45
25660892	530858	457834906	17.84
25130034	551586	433704873	17.32
24578448	584170	408126424	16.61
23994278	619472	384132146	16.01
23374806	627101	360757340	15.43
22747705	635705	338009635	14.86
22112000	639872	315897635	14.29
21472128	660014	294425507	13.71
20812114	709976	273613393	13.15
20102138	768737	253511255	12.61
19333401	844630	234177854	12.11
18488771	855141	215689083	11.67
17633630	849182	198055453	11.43
16784448	833723	181271005	10.80
15950725	833563	165320280	10.37
15117162	820802	150203118	9.94
14296360	804361	135906758	9.51
13491999	786895	122414759	9.07

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Four Years.

Age.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Cube Expect... $\frac{N_{m, m_1}}{D_{m, m_1}}$
44 & 68	12705104	769429	109709655	8.63
45 .. 69	11935675	754218	97773980	8.19
46 .. 70	11181457	734581	86592523	7.74
47 .. 71	10446876	758373	76145647	7.29
48 .. 72	9688503	785877	66457144	6.86
49 .. 73	8902626	807749	57554518	6.47
50 .. 74	8094877	828727	49459641	6.11
51 .. 75	7266150	788010	42193491	5.81
52 .. 76	6478140	755391	35715351	5.51
53 .. 77	5722749	697290	29992604	5.24
54 .. 78	5025459	622546	24967143	4.97
55 .. 79	4402913	590913	20564230	4.67
56 .. 80	3812000	527612	16752230	4.39
57 .. 81	3284388	498938	13467842	4.10
58 .. 82	2785450	449823	10682392	3.84
59 .. 83	2335627	408480	8346765	3.57
60 .. 84	1927147	360302	6419618	3.33
61 .. 85	1566845	320880	4852773	3.10
62 .. 86	1245965	278637	3606808	2.89
63 .. 87	967328	238152	2639480	2.73
64 .. 88	729176	182918	1910304	2.62
65 .. 89	546258	135310	1364046	2.50
66 .. 90	410948	119993	953098	2.32
67 .. 91	290955	92355	662143	2.28
68 .. 92	198600	62250	463543	2.33
69 .. 93	136350	40310	271280	2.40
70 .. 94	96040	27730	231153	2.41
71 .. 95	68310	19021	162843	2.38
72 .. 96	49289	13343	113554	2.30
73 .. 97	35946	10172	77608	2.16
74 .. 98	25774	7349	51834	2.01
75 .. 99	18425	4790	33409	1.81
76 ..100	13635	4122	19774	1.45
77 ..101	9513	3448	10267	1.08
78 ..102	6065	2822	4196	.69
79 ..103	3243	2290	953	.29
80 ..104	953	953		

TABLE XL. 443

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Five Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m \, l_{m_1} - l_{m+1} l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
58790000	9411604	1307793905	22.25
49378396	4314649	1258415300	25.49
45063747	3252795	1213351762	26.93
41810952	1936348	1171540810	28.02
39874604	1525930	1131666206	28.38
38348674	1063214	1093317532	28.51
37285460	833828	1056032072	28.32
36451632	686640	1018604010	27.97
35764992	592411	983815448	27.51
35172581	534061	948642867	26.97
34638520	509203	914004347	26.39
34129317	522917	879875030	25.78
33606400	531008	846268630	25.18
33075392	538832	813193238	24.59
32536560	564060	780656678	23.99
31972500	611151	745684178	23.42
31361349	639489	717322829	22.87
30721860	650916	686600969	22.35
30070944	644810	658530025	21.83
29426134	638704	627103891	21.31
28787430	626551	598316461	20.78
28160879	609939	570155582	20.25
27550940	592217	542604642	19.69
26958723	562905	515845919	19.13
26395818	545855	489250101	18.54
25849963	533395	463400138	17.93
25316568	545700	439083570	17.30
24770868	566040	413312702	16.69
24204828	598014	389107874	16.08
23606814	626948	365501000	15.48
22979866	639866	342521194	14.90
22340000	648128	320181194	14.33
21691672	668448	298489322	13.76
21023424	715091	277465898	13.20
20308333	774567	257157565	12.66
19533766	847819	237623799	12.16
18685947	858802	218937852	11.72
17827145	853153	201110707	11.28
16973992	831544	184136715	10.85
16142448	826098	167994267	10.41
15316350	820304	152677917	9.97
14496046	807306	138181871	9.53
13688740	795628	124493131	9.09
12893112	778162	111600019	8.66

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Five Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 69	12114950	765423	99485069	8.21
45.. 70	11349527	745538	88135542	7.77
46.. 71	10603989	771905	77531553	7.31
47.. 72	9832084	803647	67699469	6.89
48.. 73	9028437	821259	58671032	6.50
49.. 74	8207178	842203	50463854	6.15
50.. 75	7364975	792905	43098879	5.85
51.. 76	6572070	760986	36526809	5.56
52.. 77	5811084	703141	30715725	5.29
53.. 78	5107943	629360	25607782	5.01
54.. 79	4478583	597014	21129199	4.72
55.. 80	3881569	533569	17247630	4.44
56.. 81	3348000	503100	13899630	4.15
57.. 82	2844900	451334	11054730	3.89
58.. 83	2393566	410345	8661164	3.62
59.. 84	1983221	362086	6677943	3.37
60.. 85	1621135	328928	5056808	3.12
61.. 86	1292207	287287	3764601	2.91
62.. 87	1004920	246744	2759681	2.75
63.. 88	758176	189293	2001505	2.64
64.. 89	568883	140327	1432622	2.52
65.. 90	428556	124686	1004066	2.34
66.. 91	303870	96045	700196	2.30
67.. 92	207825	64833	492371	2.37
68.. 93	142992	41992	349379	2.44
69.. 94	101000	28970	248379	2.46
70.. 95	72030	19659	176349	2.45
71.. 96	52371	13797	123978	2.37
72.. 97	38574	10616	85404	2.21
73.. 98	27958	7707	57446	2.05
74.. 99	20251	5176	37195	1.84
75..100	15075	4470	22120	1.47
76..101	10605	3810	11515	1.09
77..102	6795	3156	4720	.70
78..103	3639	2558	1081	.39
79..104	1081	1081		

TABLE XL. 467

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Six Years.

Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
58360000	5344147	1976001829	21.90
49014573	4300881	1229066956	25.08
44713692	3266440	1184353264	26.49
41447252	1964536	1142906012	27.58
39482716	1521471	1103423296	27.95
37961245	1056317	1065462051	28.07
36904928	822560	1028557123	27.87
36082368	676856	992474755	27.51
35405512	590046	957069243	27.03
34815466	532246	922253777	26.49
34283220	514039	879970117	25.90
33769181	527581	854201376	25.30
33241600	535552	820959776	24.70
32706048	555923	788253728	24.09
32150125	593425	756103603	23.52
31556700	627360	724546903	22.96
30929340	649029	693617563	22.43
30280311	647663	663337252	21.91
29632448	641757	633704604	21.39
28990691	629561	604714113	20.86
28361130	617494	576352983	20.33
27743636	595031	548609347	19.77
27148605	565551	521460742	19.21
26583054	548417	494877688	18.67
26034637	531535	468843051	18.01
25503102	548366	443339949	17.38
24954736	560413	418385213	16.77
24394323	580359	393990990	16.13
23813964	606010	370176926	15.54
23207954	639954	346968972	14.95
22568000	652460	324400972	14.37
21915540	676964	302485432	13.80
21238576	724048	281246856	13.24
20514528	780397	260732328	12.71
19734131	854529	240998197	12.31
18879602	862337	222118595	11.77
18017265	856997	204101330	11.33
17160268	835526	186941062	10.89
16324742	824294	170616320	10.45
15500448	813398	155115972	10.01
14687050	807111	140428622	9.56
13879934	798819	126548883	9.12
13081120	786495	113467763	8.67
12294225	774227	101173538	8.21

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Six Years

Ages.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 70	11519998	756619	89653540	7.78
45.. 71	10763379	783428	78890161	7.33
46.. 72	9979951	817715	68910210	6.91
47.. 73	9162236	839075	59747974	6.52
48.. 74	8323161	856011	51424813	6.18
49.. 75	7467150	805695	43957663	5.89
50.. 76	6661455	766113	37296208	5.60
51.. 77	5895342	708554	31400866	5.33
52.. 78	5186788	634697	26214078	5.05
53.. 79	4552091	603812	21661987	4.76
54.. 80	3948279	539178	17713708	4.49
55.. 81	3409101	509101	14304607	4.20
56.. 82	2900000	455348	11404607	3.93
57.. 83	2444652	412234	8959955	3.67
58.. 84	2032418	364113	6927537	3.41
59.. 85	1668305	331324	5259232	3.15
60.. 86	1336981	294765	3922251	2.93
61.. 87	1042216	254576	2886035	2.76
62.. 88	787640	196132	2092395	2.66
63.. 89	591508	145202	1500887	2.54
64.. 90	446306	129416	1054581	2.36
65.. 91	316890	99840	737691	2.33
66.. 92	217050	67416	520641	2.40
67.. 93	149634	43714	371007	2.48
68.. 94	105920	30170	265087	2.50
69.. 95	75750	20527	189337	2.50
70.. 96	55223	14237	134114	2.43
71.. 97	40986	10984	93128	2.27
72.. 98	30002	8035	63126	2.10
73.. 99	21967	5398	41159	1.87
74..100	16569	4844	24590	1.49
75..101	11725	4150	12865	1.10
76..102	7575	3498	5290	.70
77..103	4077	2864	1213	.30
78..104	1213	1213		

TABLE XL. 1001

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Eight Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
57480000	9269222	1218445191	21.20
48210778	4321660	1170234413	24.27
43889118	3263828	1126345295	25.68
40625290	1940346	1085720005	26.73
38684944	1491760	1047035061	27.07
37193184	1029292	1009841877	27.16
36163892	806864	973677985	26.92
35357028	670476	938320957	26.54
34686552	591809	903634405	26.05
34094743	541503	869539662	25.50
33553240	523624	835986422	24.92
33029616	549616	802956806	24.31
32480000	582688	770476806	23.72
31897312	602412	738579494	23.16
31294900	620200	707284594	22.60
30674700	634422	676609894	22.06
30040278	643065	646569616	21.52
29397213	635581	617172403	20.99
28761632	623428	588410771	20.46
28138204	605314	560272367	19.91
27532890	575364	532739677	19.35
26957526	553541	505782151	18.76
26403985	536491	479378166	18.15
25667494	549298	453510672	17.53
25318196	561727	428192476	16.91
24756469	577921	403436007	16.30
24178548	583659	379257459	15.69
23594889	602689	355662570	15.07
22992000	633048	332670570	14.47
22358952	682388	310311618	13.88
21676564	738399	288635054	13.32
20938165	799661	267696889	12.79
20138504	871592	247558385	12.29
19266912	876197	228291473	11.85
18390715	867699	209900758	11.41
17523016	843115	192377742	10.98
16679901	832383	175697841	10.53
15847518	816082	159850323	10.09
15031436	799580	144818887	9.64
14231856	793256	130587031	9.18
13438600	790875	117148431	8.72
12647725	786785	104500706	8.24
11860940	774227	92639766	7.81
11096713	804690	81553053	7.36

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Twenty-Seven Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 71	10925046	795085		7.34
45 .. 72	10129961	829932	70098578	6.93
46 .. 73	9300029	853521	60798549	6.54
47 .. 74	8446508	873833		6.30
48 .. 75	7572675	818805	44779366	5.91
49 .. 76	6753870	778347	38025496	5.63
50 .. 77	5975523	713529		5.38
51 .. 78	5261994	639638		5.09
52 .. 79	4622356	609273	22165623	4.80
53 .. 80	4013083	545392	18152540	4.52
54 .. 81	3467691	514766	14684849	4.23
55 .. 82	2952925		11731924	3.97
56 .. 83	2492000	416204		3.71
57 .. 84	2075796	366106	7164128	3.45
58 .. 85		333807	5454438	3.19
59 .. 86	1375683	297555	4078555	2.96
60 .. 87	1078328	261456	3000227	2.73
61 .. 88	816872	202377	2183355	2.67
62 .. 89	614495	150439		2.55
63 .. 90		134041	1104804	2.38
64 .. 91	330015	103665	774789	2.35
65 .. 92	226350	70074	548439	2.42
66 .. 93	156276	45436	392163	2.51
67 .. 94	110840	31400	281323	2.54
68 .. 95	79440	21365	201883	2.54
69 .. 96	58075	14857	143808	2.43
70 .. 97	43218	11340	100590	2.33
71 .. 98	31878	8305	68712	2.16
72 .. 99	23573	5000		1.91
73 .. 100	17973	5086	27166	1.51
74 .. 101	12887	4512	14279	1.11
75 .. 102	8375	3830	5904	.71
76 .. 103	4545		1359	.30
77 .. 104	1359	1359		

TABLE XL. 1663

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Nine Years—*continued.*

Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
36819349	1022637	982082186	26.67
35796712	802354	946285474	26.44
34994358	673822	911291116	26.06
34320536	595894	876970580	25.55
33724642	546082	843245938	25.00
33178560	541235	810067378	24.42
32637325	579725	777430053	23.82
32057600	599680	745372453	23.25
31457920	612605	713914533	22.69
30845115	617715	683069418	22.15
30227400	631653	652842018	21.60
29595747	633864	623246271	21.06
28961883	626395	594284388	20.52
28335488	608195	565946900	19.97
27727293	578073	538221607	19.41
27149220	560561	511072387	18.82
26588659	538969	484347786	18.22
26049690	551902	458434038	17.60
25497788	564457	432936250	16.98
24933331	576634	408002919	16.36
24356697	586669	383646222	15.74
23770028	598028	359876194	15.14
23172000	616848	336704194	14.53
22555152	663436	314149042	13.93
21891716	739858	292257326	13.35
21151858	805703	271105468	12.82
20346155	882067	250759313	12.33
19464088	886648	231295225	11.88
18577440	874684	212717785	11.45
17702756	849990	194901802	11.02
16852766	836240	178162263	10.57
16016526	820132	162145737	10.12
15196394	803820	146949343	9.67
14392574	792446	132556769	9.21
13600128	785753	116956641	8.75
12814375	787766	104142266	8.28
12026609	778229	94115657	7.83
11248380	814113	82867277	7.37
10434267	852661	72433010	6.94
9581606	879199	62851404	6.56
8702407	901932	54148997	6.22
7800475	849655	46348522	5.94
6950820	806781	39397702	5.67
6144039	736485	32945082	5.41

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Eight Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
44 & 72	10282114	842295	71270939	6.93
45 .. 73	9439819	866282	61831120	6.55
46 .. 74	8573537	886637	53257583	6.21
47 .. 75	7684900	835585	45572683	5.93
48 .. 76	6849315	790893	38723368	5.65
49 .. 77	6058422	724861	32664946	5.39
50 .. 78	5333561	644183	27331385	5.12
51 .. 79	4689378	614350	22642007	4.83
52 .. 80	4075028	550421	18566979	4.56
53 .. 81	3524607	520932	15042372	4.27
54 .. 82	3003675	466196	12038697	4.01
55 .. 83	2537479	421479	9501218	3.75
56 .. 84	2116000	369820	7385218	3.49
57 .. 85	1746180	336166	5639038	3.23
58 .. 86	1410014	300310	4229024	3.00
59 .. 87	1109704	264528	3119320	2.81
60 .. 88	845176	207875	2274144	2.69
61 .. 89	637301	155211	1636843	2.57
62 .. 90	482090	138950	1154753	2.57
63 .. 91	343140	107415	811613	2.40
64 .. 92	235725	72753	575888	2.37
65 .. 93	162972	47212	412916	2.44
66 .. 94	115760	32630	297156	2.53
67 .. 95	83130	22226	214026	2.57
68 .. 96	60904	15454	153122	2.51
69 .. 97	45450	11836	107672	2.37
70 .. 98	33614	8567	74058	2.20
71 .. 99	25047	5760	49011	1.95
72 ..100	19287	5308	29724	1.54
73 ..101	13979	4774	15745	1.12
74 ..102	9205	4180	6540	.71
75 ..103	5025	3510	1515	.30
76 ..104	1515	1515		

Difference of Age Twenty-Nine Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 29	56980000	9243038	1188587940	20.86
1 .. 30	47736962	4291247	1140850978	23.88
2 .. 31	43445715	3235043	1097405263	25.26
3 .. 32	40210672	1917616	1057194591	26.29
4 .. 33	38293056	1473707	1018901535	26.61

TABLE XL.

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Twenty-Nine Years—*continued.*

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} — l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
36819349	1022637	982082186	26.67
35796712	802354	946285474	26.44
34994358	673822	911291116	26.06
34320536	595894	876970580	25.55
33724642	546082	843245938	25.00
33178560	541235	810067378	24.42
32637325	579725	777430053	23.82
32057600	599680	745372453	23.25
31457920	612605	713914533	22.69
30845115	617715	683069418	22.15
30227400	631653	652842018	21.60
29595747	633864	623246271	21.06
28961883	626395	594284388	20.52
28335488	608195	565948900	19.97
27727293	578073	538221607	19.41
27149220	560561	511072387	18.82
26588659	538969	484483728	18.22
26049690	551902	458434038	17.60
25497788	564457	432936250	16.98
24933331	576634	408002919	16.36
24356697	586669	383646222	15.75
23770028	598028	359876194	15.14
23172000	616848	336704194	14.53
22555152	663436	314149042	13.93
21891716	739858	292257326	13.35
21151858	805703	271105468	12.82
20346155	882067	250759313	12.33
19464088	886648	231295225	11.88
18577440	874684	212717785	11.45
17702756	849990	195015029	11.02
16852766	836240	178162263	10.57
16016526	820132	162145737	10.12
15196394	803820	146949343	9.67
14392574	792446	132556769	9.21
13600128	785753	118956641	8.75
12814375	787766	106142266	8.28
12026609	778229	94115657	7.83
11248380	814113	82867277	7.37
10434267	852661	72433010	6.94
9581606	879199	62851404	6.56
8702407	901932	54148997	6.22
7800475	849655	46348522	5.94
6950820	806781	39397702	5.67
6144039	736486	33253663	5.41

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty Years—continued.

Ages.	Number of Living. $l_m.l_{m_1}$ D_{m, m_1}	Decrement. $l_m.l_{m_1}-l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
54 & 84	2191647	379162	7783652	3.55
55 .. 85	1812485	344485	5971167	3.29
56 .. 86	1468000	306496	4503167	3.07
57 .. 87	1161504	270160	3341663	2.88
58 .. 88	891344	212775	2450319	2.75
59 .. 89	678569	161263	1771750	2.61
60 .. 90	517306	147601	1254444	2.43
61 .. 91	369705	115080	884739	2.39
62 .. 92	254625	78153	630114	2.48
63 .. 93	176472	50752	453642	2.57
64 .. 94	125720	35180	327922	2.61
65 .. 95	90540	23978	237382	2.63
66 .. 96	66562	16684	170820	2.57
67 .. 97	49878	12806	120942	2.43
68 .. 98	37072	9297	83870	2.26
69 .. 99	27775	6166	56095	2.02
70 ..100	21609	5670	34486	1.60
71 ..101	15939	5224	18547	1.16
72 ..102	10715	4724	7832	.73
73 ..103	5991	4150	1841	.31
74 ..104	1841	1841		

Difference of Age Thirty-One Years.

Ages.	Number of Living. $l_m.l_{m_1}$ D_{m, m_1}	Decrement. $l_m.l_{m_1}-l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 31	55850000	9077592	1129036373	20.22
1 .. 32	46772408	4205720	1082263965	23.14
2 .. 33	42566688	3163430	1039697277	24.43
3 .. 34	39403258	1879982	1000294019	25.38
4 .. 35	37523276	1451597	962770743	25.66
5 .. 36	36071679	1016003	926699064	25.69
6 .. 37	35055676	806440	891643388	25.43
7 .. 38	34249236	680340	857394152	25.03
8 .. 39	33568896	616921	823825256	24.54
9 .. 40	32951975	593835	790873281	24.00
10 .. 41	32358140	589000	758515141	23.44
11 .. 42	31769140	608040	726746001	22.88
12 .. 43	31161100	607436	695584401	22.32
13 .. 44	30553664	608119	665030737	21.77
14 .. 45	29945545	606445	635085192	21.21

TABLE XL. 1067

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-One Years—*continued.*

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
29339100	613632	605746092	20.65
28725468	609369	577020624	20.09
28116099	583491	548904525	19.52
27532608	565907	521371917	18.94
26966801	548381	494405116	18.33
26418420	561448	467986696	17.71
25856972	569917	442139724	17.10
25287055	582346	416842669	16.48
24704709	588476	392137960	15.87
24116233	600233	368021727	15.26
23516000	615536	344505727	14.65
22900464	643758	321605263	14.04
22256706	707454	299348557	13.45
21549252	791438	277799305	12.90
20757814	892332	257041491	12.38
19865482	904407	237176009	11.94
18961075	895571	218214934	11.51
18065504	867008	200149430	11.08
17198496	849990	182950934	10.64
16348506	830878	166602428	10.19
15517628	811931	151064900	9.74
14705697	801049	136379103	9.27
13904648	789798	122474455	8.81
13114850	783314	109359605	8.34
12331536	775761	97028069	7.87
11555775	821488	85472294	7.40
10734287	869107	74738007	6.96
9865180	901351	64872827	6.58
8963829	927179	55908998	6.24
8036650	875245	47872348	5.96
7161405	832542	40710941	5.69
6328863	763619	34287040	5.43
5565244	678043	28816830	5.18
4887201	638727	23929635	4.90
4248474	568185	19681161	4.63
3680289	535239	16000872	4.35
3145050	481102	12855822	4.09
2663948	436329	10191874	3.82
2227619	343984	7964255	3.58
1843635	348844	6120620	3.32
1494791	310791	4625579	3.00
1184000	273632	3441799	2.91
910368	214966	2531461	2.78
695402	163044	1836059	2.64

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
54 & 84	2191647	379162	7783652	3.55
55.. 85	1812485	344485	5971167	3.29
56.. 86	1468000	306496	4503167	3.07
57.. 87	1161504	270160	3341663	2.88
58.. 88	891344	212775	2450319	2.75
59.. 89	678569	161263	1771750	2.61
60.. 90	517306	147601	1254444	2.43
61.. 91	369705	115080	884739	2.39
62.. 92	254625	78153	630114	2.48
63.. 93	176472	50752	453642	2.57
64.. 94	125720	35180	327922	2.61
65.. 95	90540	23978	237382	2.62
66.. 96	66562	16684	170820	2.57
67.. 97	49878	12806	120942	2.43
68.. 98	37072	9297	83870	2.26
69.. 99	27775	6166	56095	2.02
70..100	21609	5670	34486	1.60
71..101	15939	5224	18547	1.16
72..102	10715	4724	7832	.73
73..103	5991	4150	1841	.31
74..104	1841	1841		

Difference of Age Thirty-One Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 31	55850000	9077592	1129030373	20.22
1.. 32	46772408	4205720	1082263965	23.14
2.. 33	42566688	3163430	1039697277	24.43
3.. 34	39403258	1879982	1000294019	25.38
4.. 35	37523276	1451597	962770743	25.66
5.. 36	36071679	1016003	926699064	25.69
6.. 37	35055676	806440	891643388	25.43
7.. 38	34249236	680340	857394152	25.03
8.. 39	33568896	616921	823825256	24.54
9.. 40	32951975	593835	790873281	24.00
10.. 41	32358140	589000	758515141	23.44
11.. 42	31769140	608040	726746001	22.68
12.. 43	31161100	607436	695584401	22.32
13.. 44	30553664	608119	665030737	21.77
14.. 45	29945545	606445	635085192	21.21

TABLE XL. 1009

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Two Years—*continued.*

Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}. l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
26040840	576923	446590404	17.15
25463917	585202	421126487	16.54
24878715	591416	396247772	15.93
24287299	603299	371960473	15.32
23684000	614804	348276473	14.71
23069196	647284	325207277	14.10
22421912	703955	302785365	13.50
21717957	777993	281067408	12.94
20939964	877306	260127444	12.42
20062658	908068	240064786	11.97
19154590	902810	220910196	11.53
18251780	877276	202658416	11.10
17374504	860008	185283912	10.66
16514496	837698	168769416	10.22
15676798	818696	153092618	9.77
14858102	805166	138234516	9.30
14052936	794161	124181580	8.84
13258775	787981	110922805	8.37
12470794	776122	98452011	7.89
11694672	818947	86757339	7.42
10875725	872752	75881614	6.98
10002973	908433	65878641	6.59
9094540	938965	56784101	6.24
8155575	886605	48628526	5.96
7268970	844977	41359556	5.69
6423993	775052	34935563	5.44
5648941	689313	29286622	5.18
4959628	651115	24326994	4.91
4308513	577167	20018481	4.65
3731346	543521	16287135	4.37
3187825	485251	13099310	4.11
2702574	440570	10396736	3.85
2262004	388109	8134732	3.60
1873895	353414	6260837	3.34
1520481	314873	4740356	3.12
1205608	277608	3534748	2.93
928000	217756	2606748	2.81
710244	164680	1896504	2.67
545564	151919	1350940	2.48
393645	120420	957295	2.43
273225	83091	684070	2.50
190134	54334	493936	2.60
135800	37760	358136	2.64
98040	25751	260096	2.65

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-One Years—*continued*.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	C Exp N — D
59 & 90	532358	149843	1303701	2
60.. 91	382515	118440	921186	2
61.. 92	264075	80745	657111	2
62.. 93	183330	52610	473781	2
63.. 94	130720	36430	343061	2
64.. 95	94290	24876	248771	2
65.. 96	69414	17322	179357	2
66.. 97	52092	13298	127265	2
67.. 98	38794	9666	88471	2
68.. 99	29128	6403	59343	2
69..100	22725	5918	36618	1
70..101	16807	5422	19811	1
71..102	11385	4956	8426	
72..103	6429	4432	1997	
73..104	1997	1997		

Difference of Age Thirty-Two Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	E
0 &32	55280000	8981408	1099368144	1
1..33	46298592	4159749	1053069552	2
2..34	42138843	3135655	1010930709	2
3..35	39003188	1864802	971927521	2
4..36	37138386	1447339	934789135	2
5..37	35691047	1015903	899095088	2
6..38	34675144	808360	864422944	2
7..39	33866784	696584	830556160	2
8..40	33170200	646763	797385960	2
9..41	32523437	611037	764862523	2
10..42	31912400	599861	732950123	2
11..43	31312539	605339	701637584	2
12..44	30707200	605664	670930384	2
13..45	30101536	599441	640828848	2
14..46	29502095	597695	611326753	2
15..47	28904400	598419	582422353	2
16..48	28305981	581679	554116372	1
17..49	27724302	568430	526392070	1
18..50	27155872	550918	499236198	1
19..51	26604954	564114	472631244	1

TABLE XL. 1011

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Three Years—*continued*.

Number of Living. $l_m . l_{m_1}$ / D_{m,m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m,m_1}	Curtate Expectation. N_{m,m_1} / D_{m,m_1}
20238708	893998	242920671	12.00
19344710	906654	223575961	11.56
18438056	884401	205137905	11.13
17553635	870151	187584250	10.69
16683504	847536	170900746	10.24
15835968	825461	155064778	9.79
15010507	811931	140054271	9.33
14198576	798401	125855695	8.86
13400175	792524	112455520	8.39
12607651	780913	99847869	7.92
11826738	820290	88021131	7.44
11006448	871673	77014683	7.00
10134775	913206	66879908	6.60
9221569	947069	57658339	6.25
8274500	897965	49383839	5.97
7376535	856053	42007304	5.69
6520482	786631	35486822	5.44
5733851	699634	29752971	5.19
5034217	661853	24718754	4.91
4372364	588287	20346390	4.45
3784077	552027	16562313	4.38
3232050	492719	13330263	4.12
2739331	444529	10590932	3.87
2294802	391982	8296130	3.62
1902820	357383	6393310	3.36
1545437	319109	4847873	3.14
1226328	291392	3671545	2.95
944936	220936	2076609	1.85
724000	166792	1952609	2.70
557208	153798	1395401	2.50
403410	122235	991991	2.46
281175	84453	710816	2.53
196722	55882	514094	2.61
140840	38990	373254	2.65
101850	26690	271404	2.67
75164	18590	169240	2.61
56574	14322	139666	2.47
42252	10418	97414	2.31
31834	6895	65580	2.06
24939	6403	40641	1.63
18536	5911	23105	1.19
12625	5422	9480	.75
7203	4926	2277	.31
2277	2277		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Two Years—*continued*.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
64 & 96	72289	17965	187807	2.60
65.. 97	54324	13808	133483	2.46
66.. 98	40516	10035	92967	2.29
67.. 99	30481	6649	62486	2.05
68..100	23832	6157	38654	1.62
69..101	17675	5670	20979	1.19
70..102	12005	5174	8974	.75
71..103	6831	4688	2143	.31
72..104	2143	2143		

Difference of Age Thirty-Three Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 33	54720000	8886763	1069774050	19.55
1.. 34	45833237	4122239	1023940813	22.34
2.. 35	41710998	3107880	982229815	23.55
3.. 36	38603118	1856620	943626697	24.44
4.. 37	36746498	1442880	906880199	24.68
5.. 38	35303618	1015682	871576581	24.69
6.. 39	34287936	823386	837288645	24.42
7.. 40	33464550	725726	803824095	24.02
8.. 41	32738824	663404	771085271	23.55
9.. 42	32075420	621680	739009851	23.04
10.. 43	31453740	597802	707556111	22.50
11.. 44	30855938	603138	676700173	21.93
12.. 45	30252800	597024	646447373	21.37
13.. 46	29655776	590796	616791597	20.80
14.. 47	29064980	582680	587726617	20.22
15.. 48	28482300	570762	559244317	19.64
16.. 49	27911538	566595	531332779	19.04
17.. 50	27344943	553455	503987836	18.43
18.. 51	26791488	566780	477196348	17.81
19.. 52	26224708	579718	450971640	17.20
20.. 53	25644990	592269	425326650	16.59
21.. 54	25052721	594356	400273929	15.98
22.. 55	24458365	606365	375815564	15.37
23.. 56	23852000	617996	351963564	14.76
24.. 57	23234004	646886	328729560	14.15
25.. 58	22587118	707954	306142442	13.55
26.. 59	21879164	775265	284263278	12.99
27.. 60	21103899	865191	263159379	12.47

TABLE XL. 1013

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Four Years—*continued.*

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
5819974	710087	30218517	5.19
5109887	671766	25108630	4.91
4438121	597965	20670509	4.66
3840156	562431	16830353	4.38
3277725	500391	13552628	4.13
2777334	451321	10775294	3.88
2326013	395603	8449281	3.63
1930410	361118	6518871	3.38
1569292	322836	4949579	3.15
1246456	280280	3703123	2.97
961176	228963	2741947	2.85
737213	169213	2004734	2.72
568000	155980	1436734	2.53
412020	123870	1024714	2.49
288150	85704	736564	2.56
202446	56726	534118	2.64
145720	40090	388398	2.67
105630	27545	282768	2.68
78085	19261	204683	2.62
58824	14822	145859	2.48
44002	10804	101857	2.31
33198	7152	68659	2.07
26046	6649	42613	1.64
19397	6157	23216	1.20
13240	5665	9976	.75
7575	5174	2401	.32
2401	2401		

Difference of Age Thirty-Five Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
53620000	8717473	1010808801	18.85
44902527	4054998	965906274	21.51
40847529	3066373	925058745	22.65
37781156	1839428	887277589	23.48
35941728	1446953	851335861	23.69

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Five Years—*continued.*

Ages.	Number of Living. $l_m.\, l_{m_1}$ $D_{m,\,m_1}$	Decrement. $l_m.\, l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\,m_1}$	Curtate Expectation. $\dfrac{N_{m,\,m_1}}{D_{m,\,m_1}}$
5 & 40	34494775	1054691	816841086	23.68
6.. 41	33440084	865724	783401002	23.43
7.. 42	32574360	750576	750826642	23.05
8.. 43	31823784	670370	719002858	22.59
9.. 44	31153414	616994	687849444	22.08
10.. 45	30536420	587253	657313024	21.53
11.. 46	29949167	585967	627363857	20.95
12.. 47	29363200	573472	598000657	20.37
13.. 48	28789728	548298	569210929	19.77
14.. 49	28241430	540330	540969499	19.16
15.. 50	27701100	540882	513268399	18.53
16.. 51	27160218	567774	486108181	17.90
17.. 52	26592444	585308	459515737	17.38
18.. 53	26007136	598117	433508601	16.67
19.. 54	25409019	604149	408099582	16.06
20.. 55	24804570	616570	383295012	15.45
21.. 56	24188000	624380	359107012	14.85
22.. 57	23563620	653774	335543392	14.34
23.. 58	22909846	712017	312633546	13.65
24.. 59	22197829	780632	290435717	13.08
25.. 60	21417197	868641	269018520	12.56
26.. 61	20548556	881321	248469964	12.09
27.. 62	19667235	882771	228802729	11.63
28.. 63	18784464	875650	210018265	11.18
29.. 64	17908814	881258	192109451	10.73
30.. 65	17027556	864566	175081895	10.28
31.. 66	16162990	844902	158918905	9.83
32.. 67	15318068	828232	143600817	9.37
33.. 68	14489856	811931	129110961	8.91
34.. 69	13677925	803763	115433036	8.44
35.. 70	12874162	790123	102558874	7.97
36.. 71	12084039	831146	90474835	7.49
37.. 72	11252893	880475	79221942	7.04
38.. 73	10372418	917042	68849524	6.64
39.. 74	9455376	954751	59394148	6.28
40.. 75	8500625	911990	50893523	5.99
41.. 76	7588635	875175	43304888	5.71
42.. 77	6713460	807363	36591428	5.45
43.. 78	5906097	719459	30685331	5.20
44.. 79	5186638	681807	25498693	4.92
45.. 80	4504831	606922	20993862	4.66
46.. 81	3897909	571609	17095953	4.39
47.. 82	3326300	509717	13769653	4.14
48.. 83	2816583	458301	10953070	3.89

TABLE XL. 1015

Carlisle Rate of Mortality on Two Joint Lives.

Difference of Age Thirty-Five Years—continued.

Ages.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
9 & 84	2358282	401617	8594788	3.64
0.. 85	1956665	▓▓▓▓▓	6638123	3.39
1.. 86	1592046	326350	5046077	3.17
2.. 87	1265696	288744	3780381	2.99
3.. 88	976952	227069	▓▓▓▓▓	2.87
4.. 89	749883	171517	2053546	2.74
5.. 90	578366	▓▓▓▓	1475180	2.55
1.. 91	420000	125700	1055180	2.51
'.. 92	294300	86832	760880	2.59
l.. 93	207468	57508	553419	2.67
.. 94	149960	▓▓▓▓	403452	2.69
.. 95	109290	28307	294162	2.69
.. 96	80983	▓▓▓▓	213179	▓▓▓
.. 97	61110	15358	152069	2.49
.. 98	45752	11179	106317	2.32
.. 99	34573	7411	71744	2.08
..100	27162	6904	44582	1.64
..101	20258	6403	24324	1.20
..102	13855	5911	10469	.76
..103	7944	5419	2525	.32
..104	2525	2525		

Difference of Age Thirty-Six Years.

Ages.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
& 36	53070000	8641289	981447879	18.49
.. 37	44428711	4024585	937019168	21.09
.. 38	40404126	3044862	896615042	22.19
.. 39	37359264	1844414	859255778	23.00
.. 40	35514850	1468677	823740928	23.19
.. 41	34046173	1066733	789694755	23.20
.. 42	32979440	873254	756715315	22.95
.. 43	32106186	746458	724609129	22.57
.. 44	31359728	667317	693249401	22.11
.. 45	30692411	608191	662556990	21.59
.. 46	30084220	578792	632472770	21.02
.. 47	29505428	571028	602967342	20.44
.. 48	28934400	545856	574032942	19.84
.. 49	28388544	533549	545644398	19.22
.. 50	27854995	525595	517789403	18.59

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Six Years—continued.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
15 & 51	27329400	557364	490460003	17.95
16.. 52	26772036	583827	463687967	17.32
17.. 53	26188209	601041	437499758	16.71
18.. 54	25587168	607459	411912590	16.10
19.. 55	24979709	619709	386932881	15.49
20.. 56	24360000	631572	362572881	14.88
21.. 57	23728428	657218	338844453	14.28
22.. 58	23071210	715923	315773243	13.69
23.. 59	22355287	785084	293417956	13.13
24.. 60	21570203	870244	271847753	12.60
25.. 61	20699959	886739	251147794	12.13
26.. 62	19813220	881696	231334574	11.68
27.. 63	18931524	865560	212403050	11.22
28.. 64	18065964	869400	194337086	10.76
29.. 65	17196564	868616	177140522	10.30
30.. 66	16327948	851913	160812574	9.85
31.. 67	15476035	837891	145336539	9.39
32.. 68	14638144	821344	130698395	8.93
33.. 69	13816800	810583	116881595	8.46
34.. 70	13006217	796943	103875378	7.99
35.. 71	12209274	836373	91666104	7.51
36.. 72	11372901	886654	80293203	7.06
37.. 73	10486247	924093	69806956	6.66
38.. 74	9562154	959354	60244802	6.30
39.. 75	8602800	914175	51642002	6.00
40.. 76	7688625	881394	43953377	5.72
41.. 77	6807231	815011	37146146	5.46
42.. 78	5992220	728831	31153926	5.20
43.. 79	5263389	690895	25890537	4.92
44.. 80	4572494	615995	21315043	4.66
45.. 81	3956499	580174	17361544	4.39
46.. 82	3376325	518001	13985219	4.14
47.. 83	2858324	466715	11126895	3.89
48.. 84	2391609	407799	8735286	3.65
49.. 85	1983810	370111	6751476	3.40
50.. 86	1613699	329651	5137777	3.18
51.. 87	1284048	292016	3853729	3.00
52.. 88	992032	229841	2861697	2.88
53.. 89	762191	173385	2099506	2.75
54.. 90	588306	160641	1511200	2.57
55.. 91	427665	127665	1083535	2.53
56.. 92	300000	88104	783535	2.61
57.. 93	211896	58216	571639	2.70
58.. 94	153680	41210	417959	2.72

TABLE XI. 1015

Carlisle Rate of Mortality on Two Joint Lives.

Difference of Age Thirty-Five Years—*continued*.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
2358282	401617	8594788	3.64
1956665	364619	6638123	3.39
1592046	326350	6046077	3.17
1265696	288744	3780381	2.99
976952	227069	2803429	2.87
749883	171517	2053545	2.74
578366	158366	1475180	2.55
420000	125700	1055180	2.51
294300	86832	760880	2.59
207468	57508	553412	2.67
149960	40670	403452	2.69
109290	28307	294162	1.60
80983	19873	213179	2.63
61110	15358	152069	2.49
45752	11179	106317	1.33
34573	7411	71744	2.08
27162	6904	44582	1.64
20258	6403	24324	1.20
13855	5911	10469	.76
7944	5419	2525	.32
2525	2525		

Difference of Age Thirty-Six Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
53070000	8641289	981447879	18.49
44428711	4024585	937019168	21.09
40404126	3044862	896615042	22.19
37359264	1844414	859255778	23.00
35514850	1468677	823740928	23.19
34046173	1066733	789694755	23.20
32979440	873254	756715315	22.95
32106186	746458	724609129	22.57
31359728	667317	693249401	22.11
30692411	608191	662556990	21.59
30084220	578792	632472770	21.02
29505428	571028	602967342	20.44
28934400	545856	574032942	19.84
28388544	533549	545644398	19.22
27854995	525595	517789403	18.59

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Six Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
15 & 51	27329400	557364	490460003	17.95
16.. 52	26772036	583827	463687967	17.33
17.. 53	26188209	601041	437499758	16.71
18.. 54	25587168	607459	411912590	16.10
19.. 55	24979709	619709	386932881	15.49
20.. 56	24360000	631572	362572881	14.68
21.. 57	23728428	657218	338844453	14.23
22.. 58	23071210	715923	315773243	13.69
23.. 59	22355287	785084	293417956	13.13
24.. 60	21570203	870244	271847753	12.60
25.. 61	20699959	886739	251147794	12.13
26.. 62	19813220	881696	231334574	11.68
27.. 63	18931524	865560	212403050	11.22
28.. 64	18065964	869400	194337086	10.75
29.. 65	17196564	868616	177140522	10.30
30.. 66	16327948	851913	160812574	9.85
31.. 67	15476035	837891	145336539	9.39
32.. 68	14638144	821344	130698395	8.93
33.. 69	13816800	810583	116881595	8.46
34.. 70	13006217	796943	103875378	7.99
35.. 71	12209274	836373	91666104	7.51
36.. 72	11372901	886654	80293203	7.06
37.. 73	10486247	924093	69806956	6.66
38.. 74	9562154	959354	60244802	6.30
39.. 75	8602800	914175	51642002	6.00
40.. 76	7688625	881394	43953377	5.72
41.. 77	6807231	815011	37146146	5.46
42.. 78	5992220	728831	31153926	5.20
43.. 79	5263389	690895	25890537	4.92
44.. 80	4572494	615995	21318043	4.66
45.. 81	3956499	580174	17361544	4.39
46.. 82	3376325	518001	13985219	4.14
47.. 83	2858324	466715	11126895	3.89
48.. 84	2391609	407799	8735286	3.65
49.. 85	1983810	370111	6751476	3.40
50.. 86	1613699	329651	5137777	3.18
51.. 87	1284048	292016	3853729	3.00
52.. 88	992032	229841	2861697	2.69
53.. 89	762191	173885	2099506	2.75
54.. 90	588306	160641	1511200	2.57
55.. 91	427665	127665	1083535	2.53
56.. 92	300000	88104	783535	2.61
57.. 93	211896	58216	571639	2.70
58.. 94	153680	41210	417959	2.72

TABLE XL. 1017

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Six Years—*continued.*

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
112470	28681	305489	2.72
83789	20411	221700	2.65
63378	15848	158322	2.50
47530	11582	110792	2.33
35948	7661	74844	2.08
28287	7161	46557	1.65
21126	6656	25431	1.20
14470	6157	10961	.76
8313	5665	2648	.32
2648	2648		

Difference of Age Thirty-Seven Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
52510000	8563566	952161724	18.13
43946434	3993490	908235290	20.67
39952944	3037394	868282346	21.73
36915550	1862568	831366796	22.52
35052982	1475802	796313814	22.72
33577180	1071736	762736634	22.72
32505444	867432	730231190	22.47
31638012	742340	698593178	22.08
30895672	657771	667697506	21.61
30237901	599421	637459605	21.08
29638480	563929	607821125	20.51
29074551	543351	578746574	19.91
28531200	531104	550215374	19.28
28000096	518866	522215278	18.65
27481230	542430	494734048	18.00
26938800	573729	467795248	17.37
26365071	599754	441430177	16.74
25765317	610469	415664860	16.13
25154848	622848	390510012	15.52
24532000	634840	365978012	14.92
23897160	664586	342080852	14.31
23232574	719829	318848278	13.72
22512745	789536	296335533	13.16
21723209	875368	274612324	12.64
20847841	888636	253764483	12.17

Carlisle Rate of Mortality for Two Joint Lives.
Difference of Age Thirty-Seven Years—*continued.*

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
25 & 62	19959205	887157	233805278	11.71
26.. 63	19072048	864649	214733230	11.26
27.. 64	18207399	859935	196525831	10.79
28.. 65	17347464	857452	179178367	10.33
29.. 66	16490012	856030	162688355	9.87
30.. 67	15633982	844902	147054373	9.41
31.. 68	14789080	830880	132265293	8.94
32.. 69	13958200	819928	118307093	8.48
33.. 70	13138272	803763	105168821	8.01
34.. 71	12334509	843743	92834312	7.53
35.. 72	11490766	892687	81343546	7.08
36.. 73	10598079	930988	70745467	6.68
37.. 74	9667091	967141	61078376	6.32
38.. 75	8699950	918910	52378426	6.02
39.. 76	7781040	884115	44597386	5.73
40.. 77	6896925	821008	37700461	5.47
41.. 78	6075917	735777	31624544	5.21
42.. 79	5340140	699983	26284404	4.92
43.. 80	4640157	624231	21644247	4.66
44.. 81	4015926	588851	17628321	4.39
45.. 82	3427075	525764	14201246	4.14
46.. 83	2901311	474259	11299935	3.90
47.. 84	2427052	415207	8872883	3.66
48.. 85	2011845	375759	6861038	3.41
49.. 86	1636086	334574	5224952	3.19
50.. 87	1301512	295096	3923440	3.01
51.. 88	1006416	232460	2917024	2.90
52.. 89	773956	175994	2143068	2.77
53.. 90	597962	162947	1545106	2.58
54.. 91	435015	129540	1110091	2.55
55.. 92	305475	89475	804616	2.63
56.. 93	216000	59040	588616	2.73
57.. 94	156960	41700	431656	2.75
58.. 95	115260	29033	316396	2.75
59.. 96	86227	20653	230169	2.67
60.. 97	65574	16280	164595	2.51
61.. 98	49294	11949 .	115301	2.34
62.. 99	37345	7933	77956	2.09
63..100	29412	7411	48544	1.65
64..101	22001	6911	26543	1.21
65..102	15090	6408	11453	.76
66..103	8682	5911	2771	.32
67..104	2771	2771		

TABLE XL. 1019

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Eight Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
51940000	8484304	923021337	17.77
43455696	3977271	879565641	20.24
39478425	3042959	840087216	21.28
36435466	1865346	803651750	22.06
34570120	1475527	769081630	22.25
33094593	1063145	735987037	22.24
32031448	861610	703955589	21.98
31169838	731686	672785751	21.58
30438152	648268	642347599	21.10
29789884	584224	612557715	20.56
29205660	536262	583352055	19.97
28669398	528598	554682657	19.35
28140800	516416	526541857	18.71
27624384	535924	498917473	18.06
27088460	559160	471829013	17.42
26529300	589977	445299713	16.79
25939323	609336	419360390	16.17
25329987	625987	394030403	15.56
24704000	638108	369326403	14.95
24065892	668112	345260511	14.35
23397780	727577	321862731	13.76
22670203	793988	299192528	13.20
21876215	880492	277316313	12.67
20995723	893928	256320590	12.21
20101795	889223	236218795	11.75
19212572	870024	217006223	11.30
18342548	859274	198663675	10.83
17483274	848562	181180401	10.36
16634712	845554	164545689	9.89
15789158	849142	148756531	9.42
14940016	837891	133816515	8.96
14102125	829397	119714390	8.49
13272728	812984	106441662	8.02
12459744	851113	93981918	7.54
11608631	900717	82373287	7.10
10707914	937727	71665373	6.69
9770187	974762	61895186	6.34
8795425	926515	53099761	6.04
7868910	889086	45230851	5.75
6979824	823849	38251027	5.48
6155975	741246	32095052	5.21
5414729	706909	26680323	4.93
4707820	632467	21972503	4.67
4075353	596803	17897150	4.39

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Eight Years—continued.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
44 & 82	3478550	533629	14418600	4.15
45.. 83	2944921	481368	11473679	3.90
46.. 84	2463553	421893	9010126	3.66
47.. 85	2041660	382453	6968466	3.41
48.. 86	1659207	339639	5309259	3.02
49.. 87	1319568	299464	3989691	3.02
50.. 88	1020104	234926	2969587	2.91
51.. 89	785178	177986	2184409	2.78
52.. 90	607192	165037	1577217	2.60
53.. 91	442155	131430	1135062	2.57
54.. 92	310725	90783	824337	2.65
55.. 93	219942	59942	604395	2.75
56.. 94	160000	42280	444395	2.78
57.. 95	117720	29354	326675	2.78
58.. 96	88366	20884	238309	2.70
59.. 97	67482	16480	170827	2.53
60.. 98	51002	12271	119825	2.35
61.. 99	38731	8176	81094	2.09
62..100	30555	7679	50539	1.65
63..101	22876	7161	27663	1.21
64..102	15715	6661	11948	.76
65..103	9054	6160	2894	.32
66..104	2894	2894		

Difference of Age Thirty-Nine Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 39	51360000	8420425	893976113	17.41
1..40	42939575	3974564	851036538	19.82
2..41	38965011	3031451	812071527	20.84
3..42	35933560	1860298	776137967	21.60
4..43	34073262	1461256	742064705	21.78
5..44	32612006	1054554	709452699	21.75
6..45	31557452	849194	677895247	21.48
7..46	30708258	721090	647186989	21.08
8..47	29987168	632315	617199821	20.58
9..48	29354853	556173	587844968	20.03
10..49	28798680	521573	559046288	19.41

TABLE XL.

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Nine Years—*continued.*

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
28277107	513907	530769181	18.77
27763200	533632	503005981	18.12
27229568	552883	475776413	17.47
26676685	575785	449099728	16.83
26100900	599847	422998828	16.21
25501053	625053	397497775	15.58
24876000	641376	372621775	14.98
24234624	671638	348387151	14.38
23562986	731576	324824165	13.79
22831410	802189	301992755	13.23
22029221	885616	279963534	12.71
21143605	899220	258819929	12.24
20244385	894557	238575544	11.79
19349828	872131	219225716	11.33
18477697	864649	200748019	10.86
17613048	848106	183134971	10.40
16764942	837234	166370029	9.92
15927708	839404	150442321	9.45
15088304	842254	135354017	8.97
14246050	836465	121107967	8.50
13409585	822329	107698382	8.03
12587256	860760	95111126	7.56
11726496	908747	83384630	7.11
10817749	946307	72566881	6.71
9871442	982217	62695439	6.35
8889225	933960	53806214	6.05
7955265	896619	45850949	5.76
7058646	828678	38792303	5.50
6229968	743893	32562335	5.23
5486075	712498	27076260	4.94
4773577	638797	22302683	4.67
4134780	604755	18167903	4.39
3530025	540871	14637878	4.15
2989154	488571	11648724	3.90
2500583	428218	9148141	3.66
2072365	388569	7075776	3.41
1683796	345580	5391980	3.20
1338216	303960	4053764	3.03
1034256	238399	3019508	2.92
795857	179861	2223651	2.79
615996	167016	1607655	2.61
448980	133155	1158675	2.58
315825	92103	842850	2.67
223722	60802	619128	2.77
162920	42920	456208	2.80

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Thirty-Nine Years—continued.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Cu Exp N, D,
56 & 95	120000	29748	336208	2.
57 .. 96	90252	21096	245956	2
58 .. 97	69156	16670	176800	2
59 .. 98	52486	12413	124314	2
60 .. 99	40073	8384	84241	2
61 .. 100	31689	7924	52552	1
62 .. 101	23765	7425	28787	1
63 .. 102	16340	6911	12447	
64 .. 103	9429	6411	3018	
65 .. 104	3018	3018		

Difference of Age Forty Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	E
0 & 40	50750000	8368851	865072536	
1 .. 41	42381149	3952889	822691387	
2 .. 42	38428260	3011154	784263127	
3 .. 43	35417106	1840702	748846021	
4 .. 44	33576404	1446985	715269617	
5 .. 45	32129419	1039287	683140198	
6 .. 46	31090132	836860	652050066	
7 .. 47	30253272	704016	621796794	
8 .. 48	29549256	603462	592247538	
9 .. 49	28945794	541174	563301744	
10 .. 50	28404620	506942	534897124	
11 .. 51	27897678	531278	506999446	
12 .. 52	27366400	550752	479633046	
13 .. 53	26815648	569743	452817398	
14 .. 54	26245905	586005	426571493	
15 .. 55	25659900	615900	400911593	
16 .. 56	25044000	640644	375867593	
17 .. 57	24403356	675164	351464237	
18 .. 58	23728192	735575	327736045	
19 .. 59	22992617	806747	304743428	
20 .. 60	22185870	894383	282557558	
21 .. 61	21291487	904512	261266071	
22 .. 62	20386975	899891	240879096	
23 .. 63	19487084	877381	221392012	
24 .. 64	18609703	866881	202782309	

TABLE XL. **1023**

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty Years—*continued.*

.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}. l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
65	17742822	853438	185039487	10.43
66	16889384	836981	168150103	9.96
67	16052403	831699	152097700	9.47
68	15220704	833254	136876996	8.99
69	14387450	841008	122489546	8.51
70	13546442	829397	108943104	8.04
71	12717045	870341	96226059	7.57
72	11846504	918920	84379555	7.12
73	10927584	954887	73451971	6.72
74	9972697	991347	63479274	6.37
75	8981350	941245	54497924	6.07
76	8040105	903996	46457819	5.78
77	7136109	835787	39321710	5.51
78	6300322	748306	33021388	5.24
79	5552016	715541	27469372	4.95
80	4836475	643942	22632897	4.68
81	4192533	611033	18440364	4.40
82	3581500	548113	14858864	4.15
83	3033387	495245	11825477	3.90
84	2538142	434627	9287335	3.66
85	2103515	394396	7183820	3.42
86	1709119	351071	5474701	3.20
87	1358048	309176	4116653	3.03
88	1048872	241974	3067781	2.92
89	806898	182524	2260883	2.80
90	624374	168884	1636509	2.62
91	455490	134790	1181019	2.59
92	320700	93306	860319	2.68
93	227394	61674	632925	2.78
94	165720	43530	467205	2.82
95	122190	30190	345015	2.82
96	92000	21368	253015	2.75
97	70632	16841	182383	2.58
98	53788	12549	128595	2.39
99	41239	8452	87356	2.12
100	32787	8140	54569	1.66
101	24647	7672	29922	1.21
102	16975	7171	12947	.76
103	9804	6661	3143	.32
104	3143	3143		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-One Years.

Ages.	Number of Living. $l_m\, l_{m_1}$ $D_{m,\, m_1}$	Decrement. $l_m\, l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages $N_{m,\, m_1}$	Curtate Expectation $\dfrac{N_{m,\, m_1}}{D_{m,\, m_1}}$
0 & 41	50090000	8292669	636356406	16.70
1..42	41797340	3921389	794559066	19.01
2..43	37875951	2975299	756683115	19.93
3..44	34900652	1821106	721782463	20.69
4..45	33079546	1425917	688702917	20.82
5..46	31653629	1024141	657049288	20.74
6..47	30629488	818014	626419800	20.45
7..48	29811474	673986	596608426	20.01
8..49	29137488	587767	567470638	19.48
9..50	28549721	526241	538921117	18.88
10..51	28023480	524524	510897637	18.23
11..52	27498956	548556	483395681	17.58
12..53	26950400	567776	456448281	16.94
13..54	26382624	580169	430065657	16.30
14..55	25802455	602455	404263302	15.67
15..56	25200000	631936	379063202	15.04
16..57	24568164	674766	354495038	14.43
17..58	23893398	739574	330601640	13.84
18..59	23153824	811305	307447816	13.28
19..60	22342519	899629	285105297	12.76
20..61	21442890	913325	263662407	12.30
21..62	20529565	905225	243132842	11.84
22..63	19624340	882631	223506502	11.39
23..64	18741709	872131	204766793	10.93
24..65	17869578	855752	186897215	10.46
25..66	17013826	842270	169883389	9.93
26..67	16171556	831692	153711833	9.51
27..68	15339864	826164	138371969	9.02
28..69	14513700	835802	123858269	8.53
29..70	13680898	834064	110177371	8.05
30..71	12846834	878179	97330537	7.58
31..72	11968655	929239	85361882	7.13
32..73	11039416	965464	74322466	6.73
33..74	10073952	1000477	64249514	6.38
34..75	9073475	950045	55175039	6.09
35..76	8123430	911217	47051609	5.79
36..77	7212213	842750	39839396	5.52
37..78	6369463	754749	████████	5.26
38..79	5614714	720106	27855219	4.96
39..80	4894608	646833	22960611	4.69
40..81	4247775	616250	18712836	4.41
41..82	3631525	553905	15081311	4.15
42..83	3077620	501919	12003691	3.90
43..84	2575701	440591	9427990	3.66

TABLE XL. **1025**

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-One Years—*continued.*

.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
85	2135110	400301	7292580	3.42
86	1734809	356337	5558071	3.20
87	1378472	314056	4179599	3.03
88	1064416	246115	3115183	2.93
89	818301	185265	2296582	2.81
90	633036	171351	1663846	2.63
91	461685	136335	1202161	2.60
92	325350	94446	870811	2.70
93	230904	62464	645907	2.80
94	168440	44150	477467	2.83
95	124290	30611	353177	2.84
96	93679	21679	259493	2.77
97	72000	17064	187498	2.60
98	54936	12674	132562	2.41
99	42262	8521	90300	2.14
00	33741	8240	56559	1.68
01	25501	7896	31058	1.22
02	17605	7420	13453	.76
03	10185	6917	3268	.32
04	3268	3268		

Difference of Age Forty-Two Years.

.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
12	49400000	8203391	807758424	16.35
13	41196609	3872967	766661815	18.61
14	37323642	2939444	729338173	19.54
15	34384198	1794512	694953975	20.21
16	32589686	1405050	662364289	20.32
17	31184636	1002440	631179653	20.24
18	30182196	786144	600997457	19.91
19	29396052	657260	571601405	19.44
50	28738792	572158	542862613	18.89
51	28166634	543674	514695979	18.27
52	27622960	542019	487073019	17.63
53	27080941	565741	459992078	16.99
54	26515200	578336	433476878	16.35
55	25936864	596864	407540014	15.71
56	25340000	618800	382200014	15.08
57	24721200	666438	357478814	14.46
58	24054762	739731	333424052	13.86

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Two Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $d_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
17 & 59	23315031	815863	310109021	13.30
18.. 60	22499168	904875	287609453	12.78
19.. 61	21594293	918743	266015560	12.32
20.. 62	20675550	913954	245340010	11.87
21.. 63	19761526	857861	225578414	11.41
22.. 64	18873715	877381	206704699	10.95
23.. 65	17996334	860060	188705365	10.49
24.. 66	17133374	844665	171572991	10.01
25.. 67	16320709	836081	155282282	9.51
26.. 68	15453728	820403	139828554	9.05
27.. 69	14627325	826377	125201229	8.56
28.. 70	13800948	826602	111400281	8.07
29.. 71	12974318	883540	98425935	7.59
30.. 72	12090806	937561	86335129	7.14
31.. 73	11153245	976197	75181684	6.74
32.. 74	10177043	1011448	65004836	6.39
33.. 75	9165600	958845	55839236	6.09
34.. 76	8206755	919797	47632481	5.80
35.. 77	7256958	849567	40345523	5.54
36.. 78	6437391	761060	33908132	5.27
37.. 79	5676331	726449	28231801	4.97
38.. 80	4949882	651050	23281919	4.70
39.. 81	4298832	619457	18983057	4.42
40.. 82	3679375	558768	15303712	4.16
41.. 83	3120607	507347	12183165	3.90
42.. 84	2613260	446555	9569845	3.66
43.. 85	2166705	405839	7403140	3.42
44.. 86	1760866	361674	5642274	3.20
45.. 87	1399192	318768	4243082	3.03
46.. 88	1080424	249996	3162658	2.93
47.. 89	830428	188446	2332230	2.81
48.. 90	641982	173892	1690248	2.63
49.. 91	468090	138315	1222158	2.61
50.. 92	329775	95523	892383	2.71
51.. 93	234252	63212	655131	2.81
52.. 94	171040	44710	487091	2.85
53.. 95	126330	31041	360761	2.86
54.. 96	95289	21975	265472	2.79
55.. 97	73314	17314	192158	2.62
56.. 98	56000	12836	136158	2.43
57.. 99	43164	8586	92994	2.15
58..100	34578	8335	58416	1.69
59..101	26243	8028	32173	1.23
60..102	18215	7652	13958	.77
61..103	10563	7168	3395	.32
62..104	3395	3395		

TABLE XL. 1027

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Three Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
48690000	8094122	779602498	16.01
40595978	3824545	739006820	18.20
36771433	2596345	702233187	19.10
33875018	1768194	668360269	19.73
32106824	1377587	636253445	19.82
30729237	967629	605524208	19.71
29761608	767790	575762600	19.35
28993818	640650	546768782	18.86
28353168	569100	518415614	18.28
27761068	561009	490651546	17.67
27203060	559427	463448486	17.04
26643633	576433	436804853	16.39
26067200	595200	410737653	15.76
25472000	613460	385265853	15.13
24858540	653940	360407113	14.50
24204600	732111	336202513	13.89
23472489	816672	312731024	13.32
22655817	910121	290074207	12.80
21745696	924161	268328511	12.34
20821535	919415	247506976	11.89
19902120	896399	227604456	11.44
19005721	882631	208599135	10.98
18123090	866168	190476045	10.51
17256922	849831	173219123	10.04
16407091	839499	156812032	9.56
15567592	831692	141244440	9.07
14735900	826907	126508540	8.59
13908993	820797	112599547	8.10
13088196	877392	99511351	7.60
12210814	943740	87300537	7.15
11267074	985069	76033453	6.75
10281485	1022365	65751478	6.39
9259400	960320	56492078	6.10
8290080	928377	48201998	5.81
7361703	857597	40840295	5.55
6504106	767239	34336189	5.28
5736867	732664	28599322	4.99
5004203	656825	23595119	4.73
4347378	623778	19247741	4.43
3723600	561875	15524141	4.17
3161725	511964	12362416	3.91
2649761	451461	9712655	3.67
2198300	411377	7514355	3.42
1786923	366715	5727432	3.21

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Three Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m. m_1}$	Curtate Expectation. $\dfrac{N_{m. m_1}}{D_{m, m_1}}$
44 & 87	1420208	323544	4307224	3.63
45.. 88	1096664	253747	3210560	2.93
46.. 89	842917	191421	2367643	2.81
47.. 90	651496	176791	1716147	2.63
48.. 91	474705	140355	1241442	2.62
49.. 92	334350	96912	907092	2.71
50.. 93	237438	63918	669854	2.82
51.. 94	173520	45240	496134	2.86
52.. 95	128280	31427	367854	2.87
53.. 96	96853	22279	271001	2.80
54.. 97	74574	17552	196427	2.63
55.. 98	57022	13022	139405	2.44
56.. 99	44000	8684	95405	2.17
57..100	35316	8422	60089	1.70
58..101	26894	8149	33195	1.23
59..102	18745	7816	14450	.77
60..103	10929	7408	3521	.32
61..104	3521	3521		

Difference of Age Forty-Four Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m. m_1}$	Curtate Expectation. $\dfrac{N_{m. m_1}}{D_{m, m_1}}$
0 & 44	47960000	7984853	751596320	15.67
1.. 45	39995147	3768344	711601173	17.79
2.. 46	36226863	2853691	675374370	18.64
3.. 47	33373112	1735154	642001258	19.21
4.. 48	31637958	1336932	610363300	19.29
5.. 49	30301026	946654	580062274	19.14
6.. 50	29354372	749660	550707902	18.76
7.. 51	28604772	656836	522103130	18.25
8.. 52	27947936	605913	494155194	17.68
9.. 53	27342023	5,8243	466813171	17.07
10.. 54	26763780	570317	440049391	16.44
11.. 55	26193463	593463	413585928	15.80
12.. 56	25600000	611968	388455928	15.17
13.. 57	24988032	648962	363467896	14.54
14.. 58	24339070	720370	338928826	13.93
15.. 59	23618700	809877	315310126	13.35
16.. 60	22808823	911724	292501303	12.82

TABLE XL. 1029

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Four Years—continued.

Number of Living. $l_m . l_{m_1}$ $D_{m. m_1}$	Decrement. $l_m. l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m. m_1}$	Curtate Expectation. $\frac{N_{m. m_1}}{D_{m. m_1}}$
21897099	929579	270604204	12.36
20957520	924876	249636684	11.91
20042644	901774	229594040	11.46
19140870	891024	210453170	10.99
18249846	871376	192203324	10.53
17378470	854997	174824854	10.06
16523473	844605	158301381	9.58
15678508	834333	142622573	9.10
14844475	832239	127778098	8.61
14012236	821575	113765862	8.12
13190661	872697	100575201	7.63
12317964	930053	88257237	7.17
11378906	991984	76878331	6.76
10385922	1012047	66491469	6.40
9354875	979955	57136534	6.11
8374920	938472	48761614	5.82
7436448	865627	41325166	5.56
6570821	774499	34754345	5.29
5796322	735751	28958023	5.00
5057571	662484	23900452	4.73
4395087	629437	19505365	4.44
3765650	565922	15739715	4.18
3199728	515053	12539987	3.92
2684675	455370	9835312	3.67
2229305	416025	7626307	3.42
1812980	371756	5813327	3.21
1441224	326068	4372103	3.03
1113136	257549	3253967	2.93
855587	194293	2403380	2.81
661294	179554	1742086	2.63
481740	142665	1260346	2.62
339075	98343	921271	2.72
240732	64852	▓▓▓▓▓▓	2.83
175880	45740	564659	2.87
130140	31792	374519	2.83
98348	22550	276171	2.81
75798	17796	200373	2 64
58002	13199	142371	2.46
44803	8803	97568	2.18
36000	8532	61568	1.71
27468	8258	34100	1.24
19210	7963	14890	.78
11247	7604	3643	.32
3643	3643		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Five Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 &45	47276000	7867123	723818677	15.31
1..46	39402877	3712825	684445800	17.37
2..47	35690052	2804298	648755748	18.18
3..48	32865754	1688670	615869994	18.73
4..49	31197084	1310675	5846,2910	18.74
5..50	29886409	925921	554786501	18.56
6..51	28960488	764544	525826013	18.16
7..52	28195944	672848	497630069	17.65
8..53	27523096	622597	470106973	17.08
9..54	26900499	588919	443206474	16.48
10..55	26311580	587580	416894894	15.84
11..56	25724000	610400	391170894	15.21
12..57	25113600	647744	366057294	14.58
13..58	24465856	715941	341591438	13.96
14..59	23749915	799015	317841523	13.39
15..60	22950900	905919	291890623	12.85
16..61	22044981	931476	272845642	12.33
17..62	21113505	930337	251732137	11.92
18. 63	20183168	907149	231548969	11.47
19..64	19276019	896399	212272950	11.01
20..65	18379620	879602	193893330	10.55
21..66	17500018	860163	176393312	10.08
22..67	16639855	849831	159753457	9.60
23..68	15790024	839499	143963433	9.12
24..69	14950525	835046	129012908	8.63
25..70	14115479	826907	114897429	8.14
26..71	13288572	874173	101608857	7.65
27..72	12414399	935643	89194458	7.18
28..73	11478756	988738	77715702	6.77
29..74	10490018	1039668	67225684	6.41
30..75	9450350	989075	57775334	6.11
31..76	8461275	948723	49314059	5.83
32..77	7512552	875016	41801507	5.56
33..78	6637536	781759	35163971	5.30
34..79	5855777	745791	29308194	5.00
35..80	5109986	668027	24198208	4.74
36..81	4441959	634984	19756249	4.45
37..82	3806975	571113	15949274	4.19
38..83	3235862	516918	12713412	3.93
39..84	2716944	458569	9996468	3.68
40..85	2258375	420072	7738093	3.43
41..86	1838303	376063	5899790	3.21
42..87	1462240	332632	4437550	3.04
43..88	1129608	281170	3307942	2.93

TABLE XL. 1031

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Five Years—continued.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
868438	197204	2439504	2.81
671234	182249	1768270	2.63
488985	144885	1279285	2.62
344100	99966	935185	2.72
244134	65814	691051	2.83
178320	46410	512731	2.88
131910	32136	380821	2.89
99774	22806	281047	2.82
76968	18014	204079	2.65
58954	13381	145125	2.46
45573	8916	99552	2.18
36657	8657	62695	1.72
28000	8380	34895	1.25
19620	8094	15275	.78
11526	7777	3749	.33
3749	3749		

Difference of Age Forty-Six Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
46570000	7750932	69636(449	14.95
38819068	3650269	65754138	16.94
35168859	2741367	62237252	17.70
32427492	1657286	58994503	18.19
30770206	1284820	55917482	18.17
29485386	938810	52968943	17.97
28546576	779242	50114286	17.56
27767334	688686	47337552	17.05
27078648	632659	44626968	16.48
26445989	605989	41985089	15.88
25840000	604756	39401089	15.25
25235244	646444	36877564	14.61
24588800	715168	34418684	14.00
23873632	795227	32031321	13.42
23078405	896105	29723481	12.88
22182300	926205	27505251	12.40
21256095	932403	25379641	11.94
20323692	912524	23347272	11.49
19411168	901774	21406155	11.03
18509394	854934	19555216	10.57

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Six Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
20 & 66	17624460	868223	177927701	10.10
21.. 67	16755237	855997	161171464	9.62
22.. 68	15901210	844065	145270224	9.14
23.. 69	15056575	840254	130213649	8.65
24.. 70	14216321	829838	115997328	8.16
25.. 71	13356483	879935	102610845	7.67
26.. 72	12506548	937927	90104297	7.21
27.. 73	11558621	986553	78533676	6.79
28.. 74	10582063	1037918	67953508	6.42
29.. 75	9544150	996520	58409458	6.12
30.. 76	8547630	957615	49861828	5.83
31.. 77	7590015	884551	42271813	5.57
32.. 78	6705464	790232	35566349	5.30
33.. 79	5915232	752831	29651117	5.01
34.. 80	5162401	674407	24458716	4.74
35.. 81	4487994	646419	20000722	4.46
36.. 82	3847575	576202	16153147	4.20
37.. 83	3271373	523747	12881774	3.94
38.. 84	2747626	462106	10134148	3.69
39.. 85	2285520	422995	7848628	3.43
40.. 86	1862525	379861	5985103	3.21
41.. 87	1482664	336584	4503439	3.04
42.. 88	1146080	264791	3357359	2.93
43.. 89	861289	199973	2476070	2.81
44.. 90	681316	184981	1794754	2.63
45.. 91	496335	147060	1298419	2.62
46.. 92	349275	101523	949144	2.72
47.. 93	247752	66912	701392	2.63
48.. 94	180840	47100	520552	2.68
49.. 95	133740	32609	386812	2.89
50.. 96	101131	23047	285681	2.83
51.. 97	78084	18220	207597	2.66
52.. 98	59864	13343	147733	2.47
53.. 99	46321	9034	101412	2.19
54..100	37287	8776	64125	1.72
55..101	28511	8511	35614	1.25
56..102	20000	8228	15614	.78
57..103	11772	7930	3842	.33
58..104	3842	3842		

TABLE XL. 1933

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Seven Years.

Ages.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 47	45880000	7627819	669133336	14.58
1 .. 48	35252181	3573399	650881155	16.49
2 .. 49	34678782	2695004	596204373	17.19
3 .. 50	31983778	1626454	564218595	17.64
4 .. 51	30357324	1293352	533861271	17.59
5 .. 52	29063972	951336	504797299	17.37
6 .. 53	28112636	793694	476684663	16.96
7 .. 54	27318942	697814	449365721	16.45
8 .. 55	26621128	649128	422744593	15.88
9 .. 56	25972000	622960	396772593	15.28
10 .. 57	25349040	641138	371423553	14.65
11 .. 58	24707902	715302	346715651	14.03
12 .. 59	23993600	794976	322722051	13.45
13 .. 60	23199624	893089	299523427	12.91
14 .. 61	22305535	917035	277217892	12.43
15 .. 62	21388500	927552	255829392	11.96
16 .. 63	20460948	914631	235368444	11.50
17 .. 64	19546317	907149	215822127	11.04
18 .. 65	18639168	890266	197182959	10.58
19 .. 66	17748902	873512	179434057	10.11
20 .. 67	16875390	862934	162558667	9.63
21 .. 68	16012456	849831	146546211	9.15
22 .. 69	15162625	845462	131383586	8.66
23 .. 70	14317163	835046	117066423	8.18
24 .. 71	13482117	883420	103584306	7.68
25 .. 72	12598697	944205	90925609	7.22
26 .. 73	11654492	989579	79331117	6.81
27 .. 74	10664913	1037013	68666204	6.44
28 .. 75	9627900	995430	59038304	6.13
29 :. 76	8632470	964992	50405834	5.84
30 .. 77	7667478	892873	42738356	5.57
31 .. 78	6774605	793837	35963751	5.31
32 .. 79	5975768	766952	29987983	5.02
33 .. 80	5214816	680787	24773167	4.75
34 .. 81	4534029	646579	20239138	4.46
35 .. 82	3887450	581189	16351688	4.21
36 .. 83	3306261	528482	13045427	3.95
37 .. 84	2777779	466449	10267648	3.70
38 .. 85	2311330	426418	7956318	3.44
39 .. 86	1884912	382712	6071406	3.22
40 .. 87	1502200	340112	4569206	3.04
41 .. 88	1162088	267948	3407118	2.93
42 .. 89	894140	202742	2512978	2.81
43 .. 90	691398	187608	1821580	2.63

TABLE XL,

Carlisle Rate of Mortality for Two Joint Lives,

Difference of Age Forty-Seven Years—continued.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 91	503790	149265	1317790	2.63
45.. 92	354525	103047	963265	2.72
46.. 93	251478	67958	711787	2.83
47.. 94	183520	47890	528267	2.88
48.. 95	135630	38096	393637	2.90
49.. 96	102534	23388	290103	2.83
50.. 97	79146	18414	210957	2.67
51.. 98	60732	13696	150225	2.47
52.. 99	47036	9137	103189	2.19
53..100	37899	8898	65290	1.72
54..101	29001	8636	36289	1.25
55..102	20365	8365	15924	.78
56..103	12000	8076	3924	.33
57..104	3924	3924		

Difference of Age Forty-Eight Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 48	45210000	7490862	642160066	14.20
1.. 49	37719138	3514875	604440928	16.03
2.. 50	34204263	2649651	570236665	16.67
3.. 51	31554612	1631164	538682053	17.07
4.. 52	29923448	1301281	508758605	17.00
5.. 53	28622167	963499	480136438	16.78
6.. 54	27658668	801306	452477770	16.36
7.. 55	26857362	713362	425620403	15.85
8.. 56	26144000	665468	399476408	15.28
9.. 57	25478532	659212	373997876	14.68
10.. 58	24819320	709501	349178556	14.07
11.. 59	24109819	794619	325068737	13.48
12.. 60	23315200	893472	301753537	12.94
13.. 61	22421728	914403	279331809	12.46
14.. 62	21507325	916925	257824484	12.00
15.. 63	20588400	910077	237236084	11.52
16.. 64	19678323	909581	217557761	11.06
17.. 65	18768942	895598	197888219	10.59
18.. 66	17873344	876801	180915475	10.12
19.. 67	16994543	868223	163920932	9.65

TABLE XL. 1035

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Eight Years—*continued.*

Number of Living. $l_m . L_{m_1}$ $D_{m . m_1}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m . m_1}$	Curtate Expectation. $\dfrac{N_{m . m_1}}{D_{m . m_1}}$
16126320	657645	147794612	9.17
15268673	850070	132525937	8.68
14418005	840254	116107932	8.19
13577751	889048	104530181	7.70
12668703	948340	91841478	7.24
11740363	996287	80101115	6.82
10744076	1040801	69357039	6.46
9703275	995055	59653764	6.13
8708220	964638	50945544	5.85
7743582	899836	43201962	5.58
6843746	806361	36358216	5.31
6037385	769201	30320831	5.03
5268184	688120	25052647	4.76
4580064	632739	20472583	4.47
3947325	586799	16545258	4.21
3340526	533123	13204732	3.95
2807403	470708	10397329	3.70
2336695	430497	8060634	3.45
1906198	385942	6154436	3.23
1520256	342856	4634180	3.05
1177400	270771	3456780	2.94
906629	205149	2550151	2.81
701480	190235	1848671	2.63
511245	151395	1337426	2.63
359850	104592	977576	2.72
255258	68978	722318	2.83
186280	48640	536038	2.88
137640	33557	398398	2.89
103083	23739	294115	2.83
60244	18066	214171	2.67
61558	13840	152613	2.48
47718	9234	104895	2.20
38484	9007	66411	1.73
29477	8762	36934	1.25
20715	8496	16219	.78
12219	8219	4000	.33
4000	4000		

TABLE XI.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Nine Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\frac{\Sigma_{m, m_1}}{D_{m, m_1}}$
0 & 49	44580000	7376983	615413717	13.80
1.. 50	37203017	3457715	578210700	15.54
2.. 51	33745302	2641678	544465398	16.14
3.. 52	31103624	1635046	513361774	16.50
4.. 53	29468578	1308607	483893196	16.42
5.. 54	28159971	968623	455733225	16.18
6.. 55	27191348	815348	428541877	15.76
7.. 56	26376000	728736	402165877	15.25
8.. 57	25647264	701158	376518613	14.68
9.. 58	24946106	727566	351572507	14.09
10.. 59	24218540	790407	327354967	13.52
11.. 60	23428133	893733	303925834	12.97
12.. 61	22534400	915040	281391431	12.49
13.. 62	21619360	916580	259772074	12.02
14.. 63	20702780	901850	239069294	11.55
15.. 64	19800900	905202	219268394	11.07
16.. 65	18895698	897912	200372696	10.60
17.. 66	17997786	884090	182374910	10.13
18.. 67	17113696	873512	165251214	9.66
19.. 68	16240184	862934	149021020	9.18
20.. 69	15377250	858403	133643780	8.69
21.. 70	14518847	845462	119124933	8.20
22.. 71	13673385	894676	105451548	7.71
23.. 72	12778709	954472	92578289	7.25
24.. 73	11824237	1000998	80843602	6.84
25.. 74	10823239	1047939	70025363	6.47
26.. 75	9775300	958905	60250063	6.16
27.. 76	8776395	964863	51473663	5.87
28.. 77	7811532	899858	43562136	5.59
29.. 78	6911674	812672	36750462	5.33
30.. 79	6099002	776497	30651460	5.03
31.. 80	5322505	695569	25358955	4.76
32.. 81	4626936	659736	20702019	4.47
33.. 82	3967200	592409	16734819	4.22
34.. 83	3374791	538293	13360028	3.96
35.. 84	2836498	474883	10523530	3.71
36.. 85	2361615	434498	8161915	3.46
37.. 85	1927117	389693	6234798	3.24
38.. 87	1537424	345872	4697374	3.06
39.. 88	1191552	272977	3505822	2.94
40.. 89	918575	207297	2587247	2.82
41.. 90	711278	192578	1875969	2.64
42.. 91	518700	153525	1357269	2.62
43.. 92	365175	106083	992094	2.72

TABLE XL. **1037**

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Forty-Nine Years—*continued.*

	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
93	259092	70012	733002	2.83
94	189080	49370	543922	2.88
95	139710	34186	404212	2.89
96	105524	24146	298688	2.83
97	81378	18966	217310	2.67
98	62412	14045	154898	2.48
99	48367	9325	106531	2.20
100	39042	9110	67489	1.73
101	29932	8877	37557	1.25
102	21055	8626	16502	.78
103	12429	8356	4073	.33
104	4073	4073		

Difference of Age Fifty Years.

	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
50	43970000	7266182	588881654	13.39
51	36703818	3440814	532177836	15.04
52	33263004	2632190	518914832	15.60
53	30630814	1638100	488284018	15.94
54	28992714	1308533	459291304	15.84
55	27684181	980181	431607123	15.59
56	26704000	829144	404903123	15.16
57	25874856	763544	379028267	14.65
58	25111312	769055	353916955	14.09
59	24342257	808477	329574698	13.54
60	23533780	890229	306040918	13.00
61	22643551	915551	283397367	12.52
62	21728000	917376	261669367	12.04
63	20810624	899719	240858743	11.57
64	19910905	897505	220947838	11.10
65	19013400	894066	201934433	10.62
66	18119334	880485	183815104	10.14
67	17232849	878801	166582255	9.66
68	16354048	868223	150228207	9.19
69	15485825	863735	134742382	8.70
70	14622090	853071	120120292	8.22
71	13769019	900304	106351273	7.72
72	12868715	960604	93482558	7.26
73	11908111	1007550	81574447	6.85

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty Years—continued.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{x, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{r_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
21 & 74	10900561	1053236	70673586	6.48
25.. 75	9847325	1003785	60826561	6.18
26.. 76	8841540	963853	51985021	5.88
27.. 77	7872687	900363	44112334	5.60
28.. 78	6972324	812785	37140010	5.33
29.. 79	6159538	782712	30980472	5.03
30.. 80	5376826	702181	25603646	4.76
31.. 81	4674945	666845	20929001	4.43
32.. 82	4007800	598744	16921201	4.23
33.. 83	3409056	543463	13512145	3.96
34.. 84	2865593	479503	10646552	3.72
35.. 85	2386090	438421	8266462	3.46
36.. 86	1947669	393373	6312793	3.24
37.. 87	1554296	349258	4758197	3.06
38.. 88	1205008	275302	3553459	2.95
39.. 89	929616	208965	2623873	2.52
40.. 90	720650	194705	1903223	2.64
41.. 91	525945	155445	1377278	2.62
42.. 92	370500	107574	1006778	2.72
43.. 93	262926	71006	743852	2.83
44.. 94	191920	50110	551932	2.89
45.. 95	141810	34699	410122	2.89
46.. 96	107111	24527	303011	2.83
47.. 97	82584	19290	220427	2.67
48.. 98	63294	14256	157133	2.49
49.. 99	49038	9465	108095	2.20
50..100	39573	9207	68522	1.73
51..101	30366	8986	38156	1.26
52..102	21380	8747	16776	.78
53..103	12633	8490	4143	.33
54..104	4143	4143		

Difference of Age Fifty-One Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 51	43386000	7200764	562547615	12.97
1.. 52	36179236	3421867	526363379	14.55
2.. 53	32757369	2621187	493611010	15.07
3.. 54	30136182	1633328	463474828	15.33
4.. 55	26502854	1314854	434971974	15.26

TABLE XL   1069

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-One Years—continued.

	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
6	27188000	991376	40778974	15.00
7	26196624	862476	38156750	14.57
8	25334448	8 0684	35623203	14.06
9	24403464	849465	33719738	13.54
0	23553999	905339	30809739	13.03
1	22745660	912415	28535079	12.55
2	21834245	915045	26351634	12.07
3	20915200	900776	24260634	11.60
4	20014624	895594	22587010	11.12
5	19119030	886830	20346780	10.64
6	18232200	882969	18523780	10.16
7	17349231	880819	16788649	9.68
8	16467912	873512	15141637	9.19
9	15594400	866067	13582237	8.71
0	14728333	858403	12109804	8.22
1	13868930	908209	10723974	7.73
2	12958721	966736	9447353	7.27
3	11991985	1014108	8228168	6.86
4	10977883	1060208	7130385	6.50
5	9917675	1010990	6138710	6.19
6	8906685	975361	5247025	5.89
7	7931124	904215	4454901	5.62
8	7026909	813321	3752992	5.34
9	6213588	783394	3130404	5.04
0	5430194	707840	2587240	4.76
1	4722354	673229	2115456	4.48
2	4049125	605181	1716573	4.22
3	3443944	549256	1366787	3.97
4	2894688	484123	1076799	3.72
5	2410565	442711	835653	3.47
6	1967854	396982	638690	3.25
7	1570872	352640	481780	3.07
8	1218232	278118	359957	2.96
9	940114	210802	265946	2.83
0	729312	196437	193012	2.65
1	532875	157200	139727	2.62
2	375675	108915	102160	2.72
3	266760	7200	75484	2.83
4	194760	50820	56006	2.88
5	143940	35219	41614	2.89
6	108721	24495	30741	2.83
7	83876	19594	22359	2.67
8	64232	14501	15936	2.48
9	49731	9609	10953	2.20

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-One Years—*continued.*

Ages.	Number of Living. $l_m.\ l_{m_1}$ $D_{m.\ m_1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\ m_1}$	Curtate Expectation. $\dfrac{N_{m,\ m_1}}{D_{m,\ m_1}}$
49 &100	40122	9343	69508	1.73
50..101	30779	9089	38729	1.26
51..102	21690	8662	17039	.79
52..103	12828	8617	4211	.33
53..104	4211	4211		

Difference of Age Fifty-Two Years.

Ages.	Number of Living. $l_m.\ l_{m_1}$ $D_{m.\ m_1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\ m_1}$	Curtate Expectation. $\dfrac{N_{m,\ m_1}}{D_{m,\ m_1}}$
0 & 52	42760000	7130729	536437233	12.55
1.. 53	35629271	3400874	500807962	14.06
2.. 54	32228397	2601395	468579565	14.54
3.. 55	29627002	1635002	438952563	14.82
4.. 56	27992000	1320572	410960563	14.68
5.. 57	26671428	1022236	384289135	14.41
6.. 58	25649192	928286	356639943	13.98
7.. 59	24720906	910258	333919037	13.51
8.. 60	23810648	948795	310108359	13.02
9.. 61	22861853	930153	287246536	12.56
10.. 62	21931700	915192	265314836	12.10
11.. 63	21016·08	901308	244298328	11.62
12.. 64	20115200	896576	224183128	11.14
13.. 65	19218624	885134	204964504	10.66
14.. 66	18333490	876190	186631014	10.18
15.. 67	17457300	878172	169173714	9.69
16.. 68	16579128	876153	152594586	9.20
17.. 69	15702975	874399	136593611	8.72
18.. 70	14828576	863735	122063035	8.23
19.. 71	13964841	913971	108098194	7.74
20.. 72	13050870	975011	95047321	7.28
21.. 73	12075859	1020654	82971405	6.87
22.. 74	11055205	1067180	71916260	6.50
23.. 75	9988025	1017710	61192235	6.20
24.. 76	8970315	980754	52957920	5.90
25.. 77	7989561	910493	44968359	5.63
26.. 78	7079068	816835	37889291	5.35
27.. 79	6262233	784389	31627058	5.05
28.. 80	5477844	708618	26149214	4.77
29.. 81	4769226	678776	21379988	4.43

TABLE XL. **1041**

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Two Years—*continued.*

	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
2	4090450	610995	17289538	4.23
3	3479455	555143	13810083	3.97
4	2924312	489272	10885771	3.72
5	2435040	447001	8450731	3.47
6	1988039	400887	6462692	3.25
7	1587152	355928	4875540	3.07
8	1231224	280793	3644316	2.96
9	950431	212683	2693885	2.83
0	737548	218268	1956337	2.65
1	539280	158655	1417057	2.63
2	380625	110139	1036432	2.72
3	270486	72886	765946	2.83
4	197600	51530	568346	2.88
5	146070	35716	422276	2.89
6	110354	25268	311922	2.83
7	85086	19888	226836	2.67
8	65198	14730	161638	2.48
9	50468	9779	111170	2.20
0	40689	9483	70481	1.73
1	31206	9221	39275	1.26
2	21985	8971	17290	.79
3	13014	8738	4276	.33
4	4276	4276		

Difference of Age Fifty-Three Years.

	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
3	42110000	7056077	510575626	12.12
4	35053923	3370056	475521703	13.57
5	31683867	2587867	443837836	14.01
6	29096000	1635848	414741836	14.25
7	27460152	1346078	387281684	14.10
8	26114074	1085750	361167610	13.83
9	25028324	1006382	336139286	13.43
0	24021942	1008686	312117344	12.99
1	23013256	969521	289104088	12.56
2	22043735	932455	267060353	12.11
3	21111280	898647	245949073	11.65
4	20212633	897433	225736440	11.17
5	19315200	886208	206421240	10.69

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Three Years—*continued.*

Ages.	Number of Living. $L_m. L_{m_1}$ D_{m, m_1}	Decrement. $L_m. L_{m_1} - L_{m+1}. L_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
13 & 66	18428992	874707	187992248	10.20
14.. 67	17554285	871885	170437963	9.71
15.. 68	16682400	873375	153755563	9.22
16.. 69	15809025	877206	137946538	8.73
17.. 70	14931819	869067	123014719	8.24
18.. 71	14062752	919733	108951967	7.75
19.. 72	13143019	981299	95808948	7.29
20.. 73	12161730	1029203	83647218	6.88
21.. 74	11132527	1074152	72514691	6.51
22.. 75	10058375	1024430	62456316	6.21
23.. 76	9033945	987306	53422371	5.91
24.. 77	8046639	915412	45375732	5.64
25.. 78	7131227	822311	38244505	5.36
26.. 79	6308716	787987	31935789	5.06
27.. 80	5520729	709653	26415060	4.78
28.. 81	4811076	680026	21603984	4.49
29.. 82	4131050	616084	17472934	4.23
30.. 83	3514966	560501	13957968	3.97
31.. 84	2954465	494505	11003503	3.72
32.. 85	2459960	451736	8543514	3.47
33.. 86	2008224	404792	6535319	3.28
34.. 87	1603432	359448	4931887	3.05
35.. 88	1243984	283417	3687903	2.96
36.. 89	960567	214925	2727336	2.84
37.. 90	745642	200272	1981694	2.66
38.. 91	545370	160170	1436324	2.63
39.. 92	385200	111150	1051124	2.73
40.. 93	274050	73690	777074	2.84
41.. 94	200360	52160	576714	2.88
42.. 95	148200	36213	428514	2.89
43.. 96	111987	25623	316527	2.83
44.. 97	86364	20186	230163	2.67
45.. 98	66178	14951	163985	2.48
46.. 99	51227	9935	112758	2.20
47..100	41292	9645	71466	1.73
48..101	31647	9357	39819	1.26
49..102	22290	9099	17529	.79
50..103	13191	8853	4338	.33
51..104	4338	4338	-	

TABLE XL. 1043

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Four Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
41430000	6968347	484986951	11.71
34461653	3345653	450525298	13.07
31116000	2572824	419409298	13.48
28543176	1656860	390866122	13.69
26886316	1404363	363979806	13.54
25481953	1161285	338497853	12.28
24320668	1103194	314177185	12.92
23217474	1027754	290959711	12.53
22189720	970596	268769991	12.11
21219124	915344	247550867	11.67
20303780	895022	227247087	11.19
19408758	887158	207838329	10.71
18521600	875872	189316729	10.22
17645728	870648	171671001	9.73
16775080	867580	154895921	9.23
15907500	874839	138938421	8.74
15032661	871998	123955760	8.25
14160663	925495	109795097	7.75
13235168	987567	96559929	7.30
12247601	1035911	84312328	6.88
11211690	1082965	73100638	6.52
10128725	1031150	62971913	6.22
9097575	993858	53874338	5.92
8103717	921544	45770621	5.65
7182173	826974	38588448	5.37
6355199	793491	32233249	5.07
5561708	712967	26671541	4.80
4848741	681441	21822800	4.50
4167300	617446	17655500	4.24
3549854	565236	14105646	3.97
2984618	499293	11121028	3.73
2485325	456549	8635703	3.48
2028776	409064	6606927	3.26
1619712	362968	4987215	3.08
1256744	286222	3730471	2.97
970522	216928	2759949	2.84
753594	202239	2006355	2.66
551355	161805	1455000	2.64
389550	112206	1065450	2.74
277344	74344	788106	2.84
203000	52730	585106	2.88
150270	36650	434836	2.69
113620	25978	321216	2.83
87642	20470	233574	2.67

3 x 2

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Four Years—continued.

Ages.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{a+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
44 & 98	67172	15175	166402	2.48
45.. 99	51997	10084	114405	2.20
46..100	41913	9797	72492	1.73
47..101	32116	9511	40376	1.35
48..102	22605	9231	17771	0.79
49..103	13374	8977	4397	0.33
50,.104	4397	4397		

Difference of Age Fifty-Five Years.

Ages.	Number of Living. $l_m \; l_{m_1}$ D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 55	40730000	6886000	459684540	11.29
1.. 56	33844000	3319204	425840540	12.58
2.. 57	30524796	2578068	395315744	12.95
3.. 58	27946708	1711206	367369036	13.15
4.. 59	26235502	1474031	341133534	13.00
5.. 60	24761471	1255275	316372063	12.79
6.. 61	23506196	1119566	292865867	12.46
7.. 62	22386630	1026982	270479237	12.08
8.. 63	21359648	952149	249119569	11.66
9.. 64	20407499	911219	228712090	11.21
10.. 65	19496280	884966	209215810	10.73
11.. 66	18611314	876914	190604196	10.24
12.. 67	17734400	871936	172870096	9.75
13.. 68	16862464	866589	156007632	9.25
14.. 69	15995875	869575	140011757	8.75
15.. 70	15126300	870003	124885457	8.26
16.. 71	14256297	928980	110629160	7.76
17.. 72	13327317	993845	97301843	7.30
18.. 73	12333472	1042619	84968371	6.89
19., 74	11290853	1090103	73677518	6.53
20.. 75	10200750	1039545	63476768	6.22
21.. 76	9161205	1000410	54315563	5.93
22.. 77	8160795	927676	46154768	5.66
23.. 78	7233119	832518	38921651	5.38
24.. 79	6400601	797914	31521044	5.08
25.. 80	5602687	717955	26918361	4.80
26.. 81	4884732	684807	22633629	4.51
27.. 82	4199925	616921	17832704	4.25

TABLE XL. 1045

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Five Years—*continued.*

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
3581004	566762	14252700	3.98
3014242	503552	11238458	3.73
2510690	460995	8727768	3.48
2049695	413407	6678073	3.26
1636288	366784	5041785	3.08
1269504	289027	3772281	2.97
980477	219073	2791804	2.85
761404	204169	2030400	2.67
557235	163410	1473165	2.64
393825	113349	1079340	2.74
280476	75036	798864	2.85
205440	53190	593424	2.89
152250	37043	441174	2.90
115207	26287	325967	2.83
88920	20754	237047	2.67
68166	15388	168881	▮▮▮
52778	10235	116103	2.20
42543	9944	73560	1.73
32599	9659	40961	1.26
22940	9377	18021	.79
13563	9105	4458	.33
4458	4458		

Difference of Age Fifty-Six Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
40000000	6799036	434687586	10.87
33200964	3314046	401486622	12.09
29886918	2616692	371599704	12.43
27270226	1776512	344329478	12.63
25493714	1561477	318835764	12.51
23932237	1267217	294903527	12.32
22665020	1115828	272238507	12.01
21549192	1006544	250689315	11.63
20542648	946774	230146667	11.20
19595874	900634	210550793	10.74
18695240	874939	191855553	10.26
17820301	873101	174035252	9.77
16947200	868000	157088052	9.27

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Six Years—*continued*.

Ages.	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectant. $\frac{N_{m, m_1}}{D_{m, m_1}}$
13 & 69	16079200	868865	141008852	8.77
14 .. 70	15210335	865235	125798517	8.27
15 .. 71	14345100	927777	111453417	7.77
16 .. 72	13417323	997980	98036094	7.31
17 .. 73	12419343	1049327	85616751	6.89
18 .. 74	11370016	1097241	74246735	6.53
19 .. 75	10272775	1046425	63973960	6.23
20 .. 76	9226350	1008477	54747610	5.93
21 .. 77	8217873	933808	46529737	5.66
22 .. 78	7284065	838062	39245672	5.39
23 .. 79	6446003	803290	32799669	5.09
24 .. 80	5642713	721990	27156956	4.81
25 .. 81	4920723	689623	22236233	4.52
26 .. 82	4231100	622061	18005133	4.26
27 .. 83	3609039	568347	14396094	3.99
28 .. 84	3040692	505082	11355402	3.73
29 .. 85	2535610	464996	8819792	3.48
30 .. 86	2070614	417454	6749178	3.26
31 .. 87	1653160	370664	5096018	3.08
32 .. 88	1282496	292064	3813522	2.97
33 .. 89	990432	221218	2823090	2.85
34 .. 90	769214	206204	2053876	2.67
35 .. 91	563010	164985	1490866	2.65
36 .. 92	398025	114471	1092841	2.75
37 .. 93	283554	75794	809287	• 2.85
38 .. 94	207760	53680	601527	2.90
39 .. 95	154080	37355	447447	2.90
40 .. 96	116725	26563	330722	2.83
41 .. 97	90162	21002	240560	2.67
42 .. 98	69160	15601	171400	2.48
43 .. 99	53559	10377	117841	2.20
44 ..100	43182	10093	74659	1.73
45 ..101	33089	9804	41570	1.26
46 ..102	23285	9521	18285	.79
47 ..103	13764	9243	4521	.33
48 ..104	4521	4521		

TABLE XL. 1047

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Seven Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1} l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Certain Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
39240000	6732838	410011220	10.45
32507162	3343691	377504058	11.61
29163471	2664289	348340567	11.95
26499182	1859224	321841405	12.15
24639958	1564143	297201447	12.06
23075815	1258647	274125632	11.88
21817168	1092226	252308464	11.57
20724942	999294	231583522	11.17
19725648	934906	211857874	10.74
18790742	890082	193067132	10.28
17900660	871372	175166472	9.79
17029288	869283	158137184	9.29
16160000	870432	141977184	8.79
15289568	864773	126687616	8.29
14424795	923895	112262821	7.78
13500900	997683	98761921	7.32
12503217	1054038	86258704	6.90
11449179	1104379	74809525	6.53
10344800	1052305	64464725	6.23
9291495	1015185	55173230	5.94
8276310	941299	46979770	5.67
7335011	843606	39561909	5.39
6491405	608666	33070504	5.09
5682739	725862	27387765	4.82
4955877	693602	22431888	4.53
4262275	626447	18169613	4.26
3635928	571331	14533785	4.00
3064497	506637	11469288	3.74
2557860	466694	8911428	3.49
2091166	421134	7020262	3.26
1670032	374312	5150230	3.08
1295720	295152	3854510	2.98
1000568	223544	2847944	2.85
777024	208239	2076918	2.67
568785	166635	1508133	2.65
402150	115573	1105983	2.75
286578	76538	819405	2.86
210040	54220	600365	2.90
155820	37692	453545	2.91
118128	26778	335417	2.84
91350	21224	244067	2.67
70126	15786	173941	2.48
54340	10519	119601	2.20
43821	10235	75780	1.73
33586	9951	42194	1.26
23635	9664	18559	.79
13971	9383	4588	.32
4588	4588		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Eight Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 58	38420000	6699711	385693598	10.04
1.. 59	31720289	3381392	353973309	11.16
2.. 60	28338897	2727143	325534412	11.49
3.. 61	25611754	1853544	300022658	11.71
4.. 62	23758210	1545614	276264448	11.63
5.. 63	22212596	1229923	254051852	11.44
6.. 64	20982668	1081976	233069184	11.11
7.. 65	19900692	985508	213168492	10.71
8.. 66	18915184	923081	194253308	10.27
9.. 67	17992103	886023	176261205	9.81
10.. 68	17106050	867805	159155125	9.70
11.. 69	16238275	871875	142916850	8.80
12.. 70	15366400	866464	127550450	8.30
13.. 71	14499935	924031	113050514	7.80
14.. 72	13575905	994805	99474609	7.33
15.. 73	12581100	1054599	86893509	6.91
16.. 74	11526501	1109676	75367008	6.54
17.. 75	10416825	1060185	64950183	6.24
18.. 76	9356640	1021893	55593543	5.94
19.. 77	8334747	947577	47258796	5.67
20.. 78	7387170	850363	39871626	5.40
21.. 79	6536807	814042	33334819	5.10
22.. 80	5722765	731734	27612054	4.82
23.. 81	4991031	698306	22621023	4.53
24.. 82	4292725	630108	18328298	4.27
25.. 83	3662617	575373	14665681	4.00
26.. 84	3087244	509359	11578437	3.75
27.. 85	2577885	468369	9000552	3.49
28.. 86	2109516	422908	6891036	3.27
29.. 87	1686608	377664	5204428	3.09
30.. 88	1308944	298059	3895484	2.98
31.. 89	1010885	225909	2884599	2.85
32.. 90	784976	210416	2099623	2.68
33.. 91	574560	168285	1525063	2.65
34.. 92	406275	116727	1118788	2.75
35.. 93	289548	77268	829240	2.86
36.. 94	212280	54750	616960	2.91
37.. 95	157530	38068	459430	2.92
38.. 96	119462	27014	339968	2.85
39.. 97	92448	21398	247520	2.68
40.. 98	71050	15951	176470	2.48
41.. 99	55099	10639	121371	2.20
42..100	44460	10377	76911	1.73
43..101	34083	10093	42828	1.26
44..102	23990	9809	18838	.79
45..103	14181	9524	4657	.33
46..104	4657	4657		

TABLE XL.   1049

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Fifty-Nine Years.

a.	Number of Living. $l_m.\ l_{m_1}$ $D_{m,\ m_1}$	Decrement. $l_m.\ l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. $N_{m,\ m_1}$	Curtate Expectation $\dfrac{N_{m,\ m_1}}{D_{m,\ m_1}}$
59	37490000	6666577	361816445	9.65
60	30823423	3433564	330993022	10.74
61	27389859	2694629	303603163	11.08
62	24695230	1825766	278907933	11.29
63	22869464	1506493	256038469	11.20
54	21362971	1214803	234675498	10.99
55	20148168	1065132	214527330	10.65
36	19083036	971780	195444294	10.24
57	18111256	917792	177333038	9.79
38	17193464	881964	160139574	9.31
39	16311500	870669	143828074	8.82
70	15440831	868031	128387243	8.32
71	14572800	926176	113814443	7.80
72	13646624	995629	100167819	7.34
73	12650995	1052695	87516824	6.92
74	11598300	1111125	75918524	6.55
75	10487175	1065390	65431349	6.24
76	9421785	1028601	56009564	5.95
77	8393184	953855	47616380	5.67
78	7439329	856039	40177051	5.40
79	6583290	820499	33593761	5.10
80	5762791	736606	27830970	4.83
81	5026185	703010	22804785	4.54
82	4323175	634392	18481610	4.28
83	3688783	578792	14792827	4.01
84	3109991	512971	11682836	3.76
85	2597020	470989	9085816	3.50
86	2126031	424623	6959785	3.27
87	1701408	379472	5258377	3.09
88	1321936	300734	3936441	2.98
89	1021202	228132	2915239	2.85
90	793070	212630	2122169	2.68
91	580440	170040	1541729	2.66
92	410400	117882	1131329	2.76
93	292518	78038	838811	2.87
94	214480	55270	624331	2.91
95	159210	38437	465121	2.92
96	120773	27281	344348	2.85
97	93492	21588	250856	2.68
98	71904	16079	178952	2.49
99	55825	10744	123127	2.21
00	45081	10501	78046	1.73
01	34580	10235	43466	1.26
02	24345	9951	19121	.79
03	14394	9667	4727	.33
04	4727	4727		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 60	36430000	6638819	338483636	9.29
1 .. 61	29791181	3381476	308692455	10.36
2 .. 62	26409705	2638273	282282750	10.69
3 .. 63	23771432	1776718	258511318	10.83
4 .. 64	21994714	1481368	236516604	16.75
5 .. 65	20513346	1193002	216003258	10.53
6 .. 66	19320344	1048370	196682914	10.18
7 .. 67	18271974	964646	178410940	9.76
8 .. 68	17307328	912503	161103612	9.31
9 .. 69	16394825	884365	144708787	8.83
10 .. 70	15510460	867073	129198327	8.33
11 .. 71	14643387	928187	114554940	7.82
12 .. 72	13715200	998304	100839740	7.35
13 .. 73	12716896	1054161	88122844	6.93
14 .. 74	11662735	1110235	76460109	6.56
15 .. 75	10552500	1067085	65907609	6.25
16 .. 76	9485415	1033794	56422194	5.95
17 .. 77	8451621	960133	47970573	5.68
18 .. 78	7491488	861715	40479085	5.40
19 .. 79	6629773	826003	33849312	5.11
20 .. 80	5803770	742431	28045542	4.83
21 .. 81	5061339	707714	22984203	4.54
22 .. 82	4353625	638676	18630578	4.28
23 .. 83	3714949	582740	14915629	4.02
24 .. 84	3132209	516054	11783420	3.76
25 .. 85	2616155	474343	9167265	3.50
26 .. 86	2141812	427084	7025453	3.23
27 .. 87	1714728	381192	5310725	3.10
28 .. 88	1333536	302198	3977189	2.98
29 .. 89	1031338	230174	2945851	2.86
30 .. 90	801164	214739	2144687	2.68
31 .. 91	586425	171825	1558262	2.66
32 .. 92	414600	119112	1143662	2.76
33 .. 93	295488	78808	848174	2.87
34 .. 94	216680	55820	631494	2.91
35 .. 95	160860	38799	470634	2.93
36 .. 96	122061	27543	348573	2.86
37 .. 97	94518	21802	254055	2.69
38 .. 98	72716	16220	181339	2.49
39 .. 99	56496	10821	124843	2.21
40 ..100	45675	10612	79168	1.73
41 ..101	35063	10363	44105	1.26
42 ..102	24700	10093	19405	.79
43 ..103	14607	9809	4798	.33
44 ..104	4798	4798		

TABLE XL. 1051

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-One Years.

Age.	Number of Living. $\frac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m_1, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 61	35210000	6484905	315634540	8.97
1.. 62	28725095	3303323	287109445	10.00
2.. 63	25421772	2559590	261687673	10.29
3.. 64	22862182	1742218	233825491	10.45
4.. 65	21119964	1449446	217705527	10.31
5.. 66	19670518	1171322	198035009	10.07
6.. 67	18499196	1038284	179535813	9.71
7.. 68	17460912	957512	162074901	9.28
8.. 69	16503400	913707	145571501	8.82
9.. 70	15589693	880273	129981808	8.34
).. 71	14709420	927787	115272388	7.84
1.. 72	13781633	1000833	101490755	7.36
2.. 73	12780800	1057312	88709955	6.94
3.. 74	11723488	1112363	76980467	6.57
4.. 75	10611125	1066625	66375342	6.26
5.. 76	9544500	1035801	56830842	5.95
6.. 77	8508699	965052	48322143	5.68
7.. 78	7543647	867391	40778498	5.41
8.. 79	6676256	831507	34102240	5.11
9.. 80	5844749	747419	28257491	4.84
0.. 81	5097330	713235	23160161	4.54
1.. 82	4384075	642960	18776086	4.28
2.. 83	3741115	586688	15034971	4.02
3.. 84	3154427	519582	11880544	3.77
4.. 85	2634845	477252	9245699	3.51
6.. 86	2157593	430137	7068106	3.29
.. 87	1727456	383480	5360650	3.10
.. 88	1343976	303588	4016674	2.99
.. 89	1040388	231272	2976286	2.86
.. 90	809116	216706	2167170	2.68
.. 91	592581	173535	1374760	2.66
.. 92	416875	120363	1155885	2.76
.. 93	298512	79632	857373	2.87
.. 94	218880	56370	638493	2.92
.. 95	162510	39184	475983	2.93
.. 96	123326	27800	352657	2.86
.. 97	95526	20012	257131	2.69
.. 98	73514	16380	183617	2.50
.. 99	57134	10910	126483	2.21
..100	46224	10699	80259	1.74
..101	35525	10480	44734	1.26
..102	25045	10225	19689	.79
..103	14820	4869	4869	.33
..104	4869			

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Two Years.

Ages	Number of Living. $\dfrac{l_m, l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages N_{m, m_1}	Carlisle Expectation $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 62	33950000	6299452	293909983	9.66
1 .. 63	2765.548	3201151	266259435	9.63
2 .. 64	24449397	2496465	241810038	9.84
3 .. 65	21952933	1700720	219857106	10.01
4 .. 66	20252212	1417725	199604894	9.86
5 .. 67	18834487	1176439	180770407	9.60
6 .. 68	17678048	1028198	163092359	9.22
7 .. 69	16649850	956914	146442509	8.80
8 .. 70	15693936	908375	130749573	8.33
9 .. 71	14785561	940781	115965012	7.84
10 .. 72	13843780	1001073	102121233	7.38
11 .. 73	12842707	1060307	89278525	6.95
12 .. 74	11782400	1116000	77496125	6.58
13 .. 75	10666400	1068875	66829725	6.27
14 .. 76	9597525	1035825	57232200	5.96
15 .. 77	8561700	967107	48670500	5.68
16 .. 78	7594593	871854	41075907	5.41
17 .. 79	6722739	837011	34353168	5.11
18 .. 80	5885728	752407	28467440	4.84
19 .. 81	5133321	718071	23334119	4.55
20 .. 82	4415250	647969	18918869	4.28
21 .. 83	3767281	590636	15151588	4.02
22 .. 84	3176645	523110	11974943	3.77
23 .. 85	2653535	480528	9321408	3.51
24 .. 86	2173007	432823	7148401	3.29
25 .. 87	1740184	386232	5408217	3.11
26 .. 88	1353952	305419	4054265	2.99
27 .. 89	1048533	232317	3005732	2.87
28 .. 90	816216	217918	2189516	2.68
29 .. 91	598390	175148	1591226	2.60
30 .. 92	423150	121560	1168076	2.76
31 .. 93	301590	80470	866486	2.87
32 .. 94	221120	56960	645366	2.91
33 .. 95	164160	39569	481206	2.93
34 .. 96	124591	28075	356615	2.86
35 .. 97	96516	22218	260099	2.69
36 .. 98	74298	16537	163801	2.50
37 .. 99	57761	11015	128040	2.22
38 ..100	46746	10794	81294	1.74
39 ..101	35952	10377	45342	1.26
40 ..102	25375	10348	19967	.79
41 ..103	15027	10087	4940	.33
42 ..104	4940	4940		

TABLE XL. 1053

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Three Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
32680000	6087077	272726422	8.35
26592923	3115901	246133499	9.26
23477022	2426066	222656477	9.48
21050956	1659498	201605521	9.58
19391458	1393002	182214063	9.40
17998456	1141356	164215607	9.12
16856900	1024706	147358707	8.74
15832194	949722	131526513	8.31
14882473	967973	116644041	7.84
13914499	1013879	102729542	7.38
12900620	1061149	89826922	6.96
11839471	1119471	77969451	6.59
10720000	1072480	67269451	6.28
9647520	1038455	57621931	5.97
8609265	967365	49012666	5.69
7641900	873759	41370766	5.41
6768141	841434	34602625	5.11
5926707	757395	28673918	4.84
5169312	722687	23306606	4.55
4446425	652355	19060181	4.29
3794070	595207	15266111	4.02
3198863	526638	12067248	3.77
2672225	483604	9395023	3.52
2188421	435805	7206602	3.29
1752616	388688	5453986	3.11
1363928	307612	4090058	3.00
1056316	233710	3033742	2.87
822606	219066	2211136	2.69
603540	176190	1607596	2.66
427350	122682	1180246	2.76
304668	81268	875578	2.87
223400	57560	652178	2.92
165840	39984	486338	2.93
125856	28350	360462	2.86
97506	22438	262976	2.70
75068	16691	187908	2.50
58377	11118	129531	2.22
47259	10901	84272	1.74
36358	10678	45914	1.26
25680	10455	20234	.79
15425	10216	5009	.33
5009	5009		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Four Years.

Ages.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 64	31430000	5894702	252273548	8.03
1.. 65	25535298	3022872	226738250	8.88
2.. 66	22512426	2356172	204225824	9.07
3.. 67	20156254	1625550	184069570	9.13
4.. 68	18530704	1368279	165538866	8.93
5.. 69	17162425	1133349	148376441	8.65
6.. 70	16029076	1014538	132347365	8.36
7.. 71	15014538	1007890	117332827	7.81
8.. 72	14006648	1040127	103326179	7.33
9.. 73	12966521	1073661	90359658	6.97
10.. 74	11892860	1120935	78466798	6.60
11.. 75	10771925	1075925	67694673	6.28
12.. 76	9696000	1041888	57998873	5.98
13.. 77	8654112	969757	49344761	5.70
14.. 78	7684355	874055	41660406	5.42
15.. 79	6810300	843567	34850106	5.12
16.. 80	5966733	761430	28883373	4.84
17.. 81	5205303	727703	23678070	4.55
18.. 82	4477600	656741	19200470	4.29
19.. 83	3820859	599249	15379611	4.03
20.. 84	3221610	530695	12158001	3.77
21.. 85	2690915	487080	9467086	3.52
22.. 86	2203835	438787	7263251	3.30
23.. 87	1765048	391876	5498203	3.12
24.. 88	1373672	309073	4124531	3.00
25.. 89	1064099	235387	3060432	2.88
26.. 90	828712	220417	2231720	2.69
27.. 91	608265	177165	1623455	2.67
28.. 92	431100	123408	1192355	2.77
29.. 93	307692	82012	884663	2.58
30.. 94	225680	58130	658983	2.92
31.. 95	167550	40406	491433	2.93
32.. 96	127144	28648	364289	2.87
33.. 97	98496	22658	265793	2.70
34.. 98	75838	16856	189955	2.50
35.. 99	58982	11219	130973	2.22
36..100	47763	11006	83210	1.74
37..101	36757	10787	46453	1.26
38..102	25970	10562	20483	.79
39..103	15408	10333	5075	.33
40..104	5075	5075		

TABLE XL.

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Five Years.

Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
30180000	5693866	232557837	7.71
24486134	2930525	208071703	8.50
21555609	2294057	186516094	8.65
19261552	1591602	167254542	8.68
17669950	1350353	149584599	8.47
16319597	1118345	133264995	8.17
15201252	1070310	118063743	7.77
14130942	1078550	103932801	7.36
13052392	1098779	90880409	6.96
11953613	1133113	76926796	6.60
10820500	1077535	68106296	6.29
9742965	1045365	58363331	5.99
8697600	973216	49665731	5.71
7724384	876249	41941347	5.43
6848135	844235	35093212	5.12
6003900	763443	29089312	4.85
5240457	731682	23848855	4.55
4508775	661127	19340080	4.29
3847648	603291	15492432	4.03
3244357	534307	12248075	3.78
2710050	490801	9538025	3.52
2219249	441769	7318775	3.30
1777480	394064	5541295	3.12
1383416	311715	4157880	3.01
1071701	236883	3086179	2.88
834818	222038	2251361	2.70
612780	178305	1638581	2.67
434475	124083	1204106	2.77
310392	82472	893714	2.88
227920	58660	665794	2.92
169260	40805	496534	2.93
128455	28951	368079	2.87
99504	22696	268575	2.70
76808	17021	191987	2.51
59587	11329	132380	2.22
48258	11109	84122	1.74
37149	10894	46973	1.26
26255	10673	20718	.79
15582	10446	5136	.33
5136	5136		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Six Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}:	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 66	28940000	5494569	213575933	7.38
1.. 67	23445431	2846639	190130502	8.11
2.. 68	20598792	2231942	169531710	8.23
3.. 69	18366850	1564652	151164860	8.23
4.. 70	16802198	1325429	134362662	8.00
5.. 71	15476769	1170101	118685893	7.63
6.. 72	14306668	1138450	104579225	7.31
7.. 73	13168218	1135442	91411007	6.94
8.. 74	12032776	1157001	79378231	6.60
9.. 75	10875775	1088875	68502456	6.30
10.. 76	9786900	1047171	. 58715556	6.00
11.. 77	8739729	976529	49975827	5.72
12.. 78	7763200	879392	42212627	5.44
13.. 79	6883808	846553	35328819	5.13
14.. 80	6037255	764155	29291564	4.85
15.. 81	5273100	733875	24018464	4.55
16.. 82	4539225	664788	19479239	4.29
17.. 83	3874437	607333	15604802	4.03
18.. 84	3267104	537919	12337698	3.78
19.. 85	2729185	494155	9608513	3.52
20.. 86	2235030	445118	7373483	3.29
21.. 87	1789912	396752	5583571	3.12
22.. 88	1393160	313857	4190411	3.01
23.. 89	1079303	238521	3111108	2.88
24.. 90	840782	223487	2270326	2.70
25.. 91	617295	179595	1653031	2.68
26.. 92	437700	124878	1215331	2.78
27.. 93	312822	82902	902509	2.89
28.. 94	229920	58980	672589	2.93
29.. 95	170940	41174	501649	2.93
30.. 96	129766	29236	371883	2.87
31.. 97	100530	23138	271353	2.70
32.. 98	77392	17200	193961	2.51
33.. 99	60192	11439	133769	2.22
34..100	48753	11219	85016	1.74
35..101	37534	10999	47482	1.27
36..102	26535	10782	20947	.79
37..103	15753	10559	5194	.33
38..104	5194	5194		

TABLE XL. 1057

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Seven Years.

Number of Living. l_m, l_{m_1} / D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. N_{m, m_1} / D_{m, m_1}
27710000	▓▓▓▓	195322628	7.05
22404728	2762753	172917900	7.72
19641975	2177101	153275925	7.80
17464874	1630428	135811051	7.78
15934446	1365475	119876605	7.53
14565971	▓▓▓▓	105310634	7.23
13331972	1192418	91978662	6.90
12139554	1191754	79639108	6.58
10947800	1110905	68691308	6.29
9836895	1057755	59054413	6.00
8779140	976337	50275273	5.73
7600803	882403	42474470	5.45
6918400	849696	35556070	5.14
6068704	766309	▓▓▓▓	4.▓▓
5302395	734893	24184971	4.56
4567500	666897	19617471	4.30
▓▓▓▓	610752	15716868	4.03
3289651	541531	12427017	3.78
2748320	497509	▓▓▓▓	3.52
2230811	448171	7427886	3.30
1802640	▓▓▓▓	5625246	3.12
1402904	315999	▓▓▓▓	3.01
1086905	240159	3135437	2.89
846746	225041	2288691	2.70
621705	▓▓▓▓	1666986	2.▓▓
440925	125781	1226061	2.78
315144	83424	910917	2.89
231720	59280	679197	▓▓▓
172440	41386	505757	2.94
131054	29498	375703	2.87
101556	23366	274147	2.70
78190	17382	▓▓▓▓	* 2.51
60808	11560	135149	2.22
49248	11329	85901	1.74
37919	11109	47982	1.27
26810	10889	21172	.79
15921	10670	5251	.33
5251	5251		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Six Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1} :	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 66	28940000	5494569	213575933	7.38
1 .. 67	23445431	2846639	190130302	8.11
2 .. 68	20598792	2231942	169531710	8.23
3 .. 69	18366850	1564652	151164860	8.23
4 .. 70	16802198	1325429	134362662	8.00
5 .. 71	15476769	1170101	118685893	7.63
6 .. 72	14306668	1138450	104579225	7.31
7 .. 73	13168218	1135442	91411007	6.94
8 .. 74	12032776	1157001	79378231	6.60
9 .. 75	10875775	1088875	68502456	6.30
10 .. 76	9786900	1047171	. 58715556	6.00
11 .. 77	8739729	976529	49975827	5.72
12 .. 78	7763200	879392	42212627	5.44
13 .. 79	6883808	846553	35328819	5.13
14 .. 80	6037255	764155	29291564	4.85
15 .. 81	5273100	733875	24018464	4.55
16 .. 82	4539225	664788	19479239	4.29
17 .. 83	3874437	607333	15604802	4.03
18 .. 84	3267104	537919	12337698	3.78
19 .. 85	2729185	494155	9608513	3.52
20 .. 86	2235030	445118	7373483	3.29
21 .. 87	1789912	396752	5583571	3.12
22 .. 88	1393160	313857	4190411	3.01
23 .. 89	1079303	238521	3111108	2.88
24 .. 90	840782	223487	2270326	2.70
25 .. 91	617295	179595	1653031	2.69
26 .. 92	437700	124878	1215331	2.78
27 .. 93	312822	82902	902509	2.89
28 .. 94	229920	58980	672589	2.93
29 .. 95	170940	41174	501649	2.93
30 .. 96	129766	29236	371883	2.87
31 .. 97	100530	23138	271353	2.70
32 .. 98	77392	17200	193961	2.51
33 .. 99	60192	11439	133769	2.22
34 ..100	48753	11219	85016	1.74
35 ..101	37534	10999	47482	1.27
36 ..102	26535	10782	20947	.79
37 ..103	15753	10559	5194	.33
38 ..104	5194	5194		

TABLE XL. 1057

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Seven Years.

.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
67	27710000	5305272	195322628	7.05
68	22404728	2762753	172917900	7.72
69	19641975	2177101	153275945	7.80
70	17464874	1530428	135811051	7.78
71	15934446	1368475	119876605	7.52
72	14565971	1233999	105310634	7.23
73	13331972	1192418	91978662	6.90
74	12139554	1191754	79639108	6.58
75	10947800	1110905	68891308	6.29
76	9836895	1057755	59054413	6.00
77	8779140	978337	50275273	5.73
78	7800803	882403	42474470	5.45
79	6918400	849696	35556070	5.14
80	6068704	766309	29487366	4.86
81	5302395	734895	24184971	4.56
82	4567500	666897	19617471	4.30
83	3900603	610752	15716868	4.03
84	3289851	541531	12427017	3.78
85	2748320	497509	9678697	3.52
86	2250811	448171	7427886	3.30
87	1802640	399736	5625246	3.12
88	1402904	315999	4222342	3.01
89	1086905	240159	3135437	2.89
90	846746	225041	2268691	2.70
91	621705	180780	1666986	2.68
92	440925	125781	1226061	2.78
93	315144	83424	910917	2.89
94	231720	59280	679197	2.93
95	172440	41386	506757	2.94
96	131054	29498	375703	2.87
97	101556	23366	274147	2.70
98	78190	17382	195957	2.51
99	60808	11560	135149	2.22
00	49248	11329	85901	1.74
01	37919	11109	47982	1.27
02	26810	10889	21172	.79
03	15921	10670	5251	.33
04	5251	5251		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Eight Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 68	26480000	5115975	177799192	6.71
1.. 69	21364025	2686646	156435167	7.32
2.. 70	18677379	2114481	137757788	7.38
3.. 71	16562898	1566184	121194890	7.32
4.. 72	14996714	1423105	106198176	7.08
5.. 73	13573609	1283093	92624567	6.82
6.. 74	12290516	1245560	80334051	6·54
7.. 75	11044950	1142916	69289101	6.27
8.. 76	9902040	1078053	59387061	6.00
9.. 77	8823987	988007	50563074	5.73
10.. 78	7835980	884069	42727094	5.45
11.. 79	6951911	852711	35775183	5.15
12.. 80	6099200	769184	29675983	4.87
13.. 81	5330016	737141	24345967	4.57
14.. 82	4592875	667975	19753092	4.30
15.. 83	3924900	612831	15828192	4.03
16... 84	3312069	544614	12516123	3.78
17.. 85	2767455	500863	9748668	3.52
18.. 86	2266592	451224	7482076	3.30
19.. 87	1815368	402488	5666708	3.12
20.. 88	1412880	318373	4253828	3.01
21.. 89	1094507	241797	3159321	2.89
22.. 90	852710	226595	2306611	2.71
23.. 91	626115	182040	1680496	2.68
24.. 92	444075	126609	1236421	2.78
25.. 93	317466	84026	918955	2.89
26.. 94	233440	59650	685515	2.94
27.. 95	173790	41586	511725	2.95
28.. 96	132204	29640	379521	2.87
29.. 97	102564	23576	276957	2.70
30.. 98	78988	17553	197969	2.51
31.. 99	61435	11683	136534	2.23
32..100	49752	11448	86782	1.74
33..101	38304	11219	48478	1.27
34..102	27085	10999	21393	.79
35..103	16086	10779	5307	.33
36..104	5307	5307		

TABLE XL. 1059

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Sixty-Nine Years.

Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
25250000	4935139	161004389	6.38
20314861	2602078	140689528	6.93
17712783	2124601	122976745	6.94
15588182	1613176	107388563	6.89
13975006	1461729	93413557	6.68
12513277	1330977	80900286	6.47
11182300	1192390	69717980	6.24
9989910	1107486	59728070	5.98
8882424	1006415	50845646	5.72
7876009	892749	42969637	5.46
6983260	854517	35986377	5.15
6128743	771943	29857134	4.87
5356800	740000	24500834	4.57
4616800	670095	19884634	4.31
3946705	614005	15937329	4.04
3332700	546555	12604629	3.78
2786145	503772	9818480	3.52
2282373	454277	7536111	3.30
1828096	405240	5708015	3.12
1422856	320566	4885159	3.01
1102290	243616	3182869	2.89
858674	228149	2324195	2.71
630525	183300	1693670	2.69
447225	127491	1246445	2.79
319734	84574	926711	2.90
235160	60080	691551	2.94
175080	41841	516471	2.95
133239	29775	383232	2.88
103464	23692	279768	2.70
79772	17710	199996	2.51
62062	11797	137934	2.22
50265	11569	87669	1.74
38696	11336	48973	1.27
27360	11109	21613	.79
16251	10889	55362	.33
5362	5362		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy Years.

Ages.	Number of Living. $l_m . l_{m_1}$ $D_{m. m_1}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 70	24010000	4744303	144941974	6.04
1.. 71	19265697	2595300	125676277	6.53
2.. 72	16670397	2144219	109005880	6.54
3.. 73	14526178	1642860	94479702	6.50
4.. 74	12883318	1498343	81596384	6.33
5.. 75	11384975	1270829	70211409	6.17
6.. 76	10114146	1152900	60097269	5.94
7.. 77	8961246	1033078	51136023	5.71
8.. 78	7928168	909235	43207855	5.45
9.. 79	7018933	862553	36188922	5.16
10.. 80	6156380	773633	30032542	4.88
11.. 81	5382747	742747	24649795	4.58
12.. 82	4640000	672736	20009795	4.31
13.. 83	3967264	616049	16042531	4.04
14.. 84	3351215	547715	12691316	3.79
15.. 85	2803500	505713	9887816	3.53
16.. 86	2297787	456963	7590029	3.30
17.. 87	1840824	407992	5749205	3.11
18.. 88	1432832	322459	4316373	3.01
19.. 89	1110373	245593	3206300	2.89
20.. 90	864780	229845	2341520	2.71
21.. 91	634935	184560	1706585	2.69
22.. 92	450375	128373	1256216	2.79
23.. 93	322002	85162	934208	2.90
24.. 94	236840	60470	697368	2.95
25.. 95	176370	42142	520998	2.95
26.. 96	134228	29954	386770	2.88
27.. 97	104274	23802	282496	2.71
28.. 98	80472	17794	202024	2.51
29.. 99	62678	11900	139346	2.23
30..100	50778	11683	88568	1.74
31..101	39095	11455	49473	1.27
32..102	27640	11224	21833	.79
33..103	16416	10999	5417	.34
34..104	5417	5417		

TABLE XI. 1061

Carlisle Rate of Mortality for Two Joint Lives,

Difference of Age Seventy-One Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
22770000	4638077	129601661	5.69
18131923	2597260	111469748	6.15
15534663	2143229	95935085	6.25
13391434	1669784	82543651	6.16
11721650	1424195	70822001	6.04
10297455	1224771	60524546	5.88
9072684	1074162	51451862	5.67
7998522	933106	43453340	5.43
7065416	877587	36387924	5.15
6187829	780809	30200095	4.88
5407020	744545	24793075	4.59
4662475	675275	20130600	4.32
3987200	618528	16143400	4.05
3368672	549597	12774728	3.79
2819075	506975	9955653	3.53
2312100	458844	7643553	3.31
1853256	410448	5790297	3.12
1442808	324952	4347489	3.01
1117856	246970	3229633	2.89
870886	231436	2358747	2.71
639450	185925	1719297	2.69
453525	129255	1265772	2.79
324270	85750	941502	2.90
238520	60890	702982	2.95
177630	42413	525352	2.96
135217	30169	390135	2.29
105048	23946	285087	2.71
81102	17874	203985	2.52
63228	11946	140757	2.23
51282	11788	89475	1.75
39494	11569	49981	1.27
27925	11341	22066	.79
16584	11112	5472	.33
5472	5472		

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Two Years.

Ages.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 72	21430000	4533383	115060537	5.37
1.. 73	16896617	2575478	98163920	5.81
2.. 74	14321139	2137189	83842781	5.86
3.. 75	12183950	1581980	71658831	5.88
4.. 76	10601970	1364847	61056861	5.76
5.. 77	9237123	1139135	51819738	5.61
6.. 78	8097988	969874	43721750	5.40
7.. 79	7128114	899306	36593636	5.13
8.. 80	6228808	794167	30364828	4.88
9.. 81	5434641	751141	24930187	4.59
10.. 82	4683500	676987	20246687	4.32
11.. 83	4006513	620913	16240174	4.05
12.. 84	3385600	551840	12854574	3.80
13.. 85	2833760	508815	10020814	3.54
14.. 86	2324945	460145	7695869	3.31
15.. 87	1864800	412248	5831069	3.13
16.. 88	1452552	326913	4378517	3.01
17.. 89	1125639	248647	3252878	2.89
18.. 90	876992	233027	2375886	2.71
19.. 91	643965	187215	1731921	2.69
20.. 92	456750	130212	1275171	2.79
21.. 93	326538	86338	948633	2.91
22.. 94	240200	61310	708433	2.95
23.. 95	178890	42707	529543	2.96
24.. 96	136183	30361	393360	2.89
25.. 97	105822	24118	287538	2.72
26.. 98	81704	17981	205834	2.52
27.. 99	63723	11991	142111	2.23
28..100	51732	11846	90379	1.75
29..101	39886	11676	50493	1.27
30..102	28210	11455	22283	.79
31..103	16755	11227	5528	.33
32..104	5528	5528		

Difference of Age Seventy-Three Years.

Ages.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 73	19970000	4393299	101418256	5.08
1.. 74	15576701	2546876	85841555	5.51
2.. 75	13029825	2009715	72811730	5.59
3.. 76	11020110	1509828	61791620	5.61
4.. 77	9510282	1265521	52281338	5.50

TABLE XL. 1063

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Three Years—continued.

	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
8	8244761	1028005	44036577	5.34
9	7216756	932674	36819821	5.10
0	6284082	813350	30535739	4.86
1	5470632	763207	25056107	4.58
2	4707425	682845	20357682	4.33
3	4024580	622581	16333102	4.06
4	3401999	553909	12931103	3.80
5	2848000	510944	10083103	3.54
6	2337056	461696	7746047	3.31
7	1875160	413560	5870887	3.13
8	1461600	328359	4409287	3.02
9	1133241	250143	3276046	2.89
0	883098	234618	2392948	2.71
1	648480	188505	1744468	2.69
2	459975	131115	1284493	2.79
3	326860	86980	955633	2.91
4	241680	61730	713753	2.95
5	180150	43001	533603	2.96
6	137149	30571	396454	2.89
7	106578	24272	289876	2.72
8	82306	18110	207570	2.52
9	64196	12059	143374	2.23
0	52137	11901	91237	1.75
1	40236	11746	51001	1.27
2	28490	11564	22511	.79
3	16926	11341	5585	.32
4	5585	5585		

Difference of Age Seventy-Four Years.

	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
4	18410000	4237825	88765897	4.82
5	14172175	2386990	74593722	5.26
6	11785185	1899319	62808537	5.33
7	9885366	1396792	52923171	5.35
8	8488574	1141017	44434597	5.23
9	7347557	985329	37087040	5.05
0	6362228	843050	30724812	4.83
1	5519178	780578	25205634	4.57
2	4738600	693461	20467034	4.32

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Four Years—continued.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
9 & 83	4045139	627799	16421895	4.06
10.. 84	3417340	555545	13004555	3.81
11.. 85	2861,95	512995	10142760	3.54
12.. 86	2348800	463872	7793960	3.33
13.. 87	1884928	415208	5909032	3.13
14.. 88	1469720	329420	4439312	3.02
15.. 89	1140300	251238	3299012	2.89
16.. 90	889062	236067	2409950	2.71
17.. 91	652995	189795	1756935	2.69
18.. 92	463200	132018	1293755	2.79
19.. 93	331182	87582	962573	2.91
20.. 94	243600	62190	718973	2.95
21.. 95	181410	43295	537363	2.96
22.. 96	138115	30781	399448	2.89
23.. 97	107334	24440	294114	2.72
24.. 98	82894	18225	209220	2.52
25.. 99	64669	12145	144551	2.24
26..100	52524	11973	92027	1.75
27..101	40551	11811	51476	1.27
28..102	28740	11646	22736	.79
29..103	17094	11452	5642	.33
30..104	5642	5642		

Difference of Age Seventy-Five Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 75	16750000	3931585	77205700	4.61
1.. 76	12818415	2246754	64387285	5.02
2.. 77	10571561	1748299	53815624	5.09
3.. 78	8823362	1258524	44992262	5.10
4.. 79	7564838	1087297	37427424	4.95
5.. 80	6477541	889729	30949883	4.78
6.. 81	5587812	807162	25362071	4.54
7.. 82	4780650	708722	20581421	4.31
8.. 83	4071928	637131	16509493	4.05
9.. 84	3434797	560097	13074696	3.82
10.. 85	2874700	514523	10199996	3.55
11.. 86	2360177	465777	7839819	3.32

TABLE XL. 1065

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Five Years—*continued.*

Ages.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}. l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
12 & 87	1894400	417024	5945419	3.14
13.. 88	1477376	330741	4468043	3.02
14.. 89	1146635	252035	3321408	2.90
15.. 90	894600	237195	2426808	2.71
16.. 91	657405	190960	1769403	2.69
17.. 92	466425	132921	1302978	2.79
18.. 93	333504	88184	969474	2.91
19.. 94	245320	62620	724154	2.95
20.. 95	182700	43619	541454	2.96
21.. 96	139081	30991	402373	2.89
22.. 97	108090	24608	294283	2.72
23.. 98	83482	18351	210801	2.53
24.. 99	65131	12220	145670	2.24
25..100	52911	12059	92759	1.75
26..101	40852	11887	51907	1.27
27..102	28965	11721	22942	.79
28..103	17244	11546	5698	.33
29..104	5698	5698		

Difference of Age Seventy-Six Years.

Ages.	Number of Living. $l_m. l_{m_1}$ D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1} l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 76	15150000	3651501	66705527	4.40
1.. 77	11498499	2062572	55207028	4.80
2.. 78	9435927	1572733	45771101	4.85
3.. 79	7863194	1194100	37907907	4.82
4.. 80	6669094	980005	31238813	4.68
5.. 81	5689089	848989	25549724	4.49
6.. 82	4840100	732038	20709624	4.28
7.. 83	4108062	650518	16601562	4.04
8.. 84	3457544	568159	13144018	3.80
9.. 85	2889385	318565	10254633	3.55
10.. 86	2370820	467244	7883813	3.33
11.. 87	1903576	418776	5980237	3.14
12.. 88	1484800	332192	4495437	3.03
13.. 89	1152608	253038	3342829	2.90
14.. 90	899570	238070	2443259	2.72
15.. 91	661500	191925	1781759	2.69
16.. 92	469575	133749	1312184	2.79

TABLE XL.

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Six Years—continued.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m}}$
17 & 93	335826	88786	976358	2.91
18.. 94	247040	63050	729318	2.95
19.. 95	183990	43920	545328	
20.. 96	140070	31224	405258	2.80
21.. 97	108946	24776	296412	2.71
22.. 98	84070	18477	212349	2.53
23.. 99	65593	12304	146749	2.14
24..100	53289	12136	93460	1.75
25..101	41153	11973	52307	1.27
26..102	29180	11801	23127	.79
27..103	17379	11631	5748	.33
28..104	5748	5748		

Difference of Age Seventy-Seven Years.

Ages.	Number of Living. $\dfrac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 77	13590000	3326807	57254209	4.21
1.. 78	10263193	1854094	46991016	4.58
2.. 79	8409099	1476977	38581917	4.59
3.. 80	6932122	1074796	31649795	4.57
4.. 81	5857326	929501	25792469	4.40
5.. 82	4927825	768677	20864644	4.23
6.. 83	4159148	670922	16705496	4.02
7.. 84	3488226	579706	13217270	3.79
8.. 85	2908520	525569	10308750	3.54
9.. 86	2382931	470771	7925819	3.33
10.. 87	1912160	420168	6013659	3.15
11.. 88	1491992	333592	4521667	3.03
12.. 89	1158400	254144	3363267	2.90
13.. 90	904256	239081	2459011	2.72
14.. 91	665175	192675	1793836	2.70
15.. 92	472500	134406	1321336	2.80
16.. 93	338094	89334		2.91
17.. 94	248760	63480	734468	2.95
18.. 95	185280	44221	549202	2.96
19.. 96	141059	31439	406143	2.89
20.. 97	109620	24962	298523	2.73
21.. 98	84658	18603	213865	2.53
22.. 99	66055	12388	147810	2.24

TABLE XL. 1067

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Seven Years—continued.

	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
00	53667	12220	94143	1.75
01	41447	12052	52696	1.27
02	29395	11887	23301	.79
03	17508	11715	5793	▓
04	5793	5793		

Difference of Age Seventy-Eight Years.

	Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m, l_{m_1} - l_{m+1}, l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
78	12130000	2983659	48788310	4.02
79	9146341	1732954	39641969	▓▓
80	7413387	1325049	32228583	4.35
81	▓▓▓▓▓	1014788	▓▓14024▓	4.29
82	5073550	839019	21066694	4.15
83	4234531	702927	16832163	3.98
84	3531604	597274	▓▓▓▓▓▓	3.77
85	2934330	535618	10366229	3.53
86	2398712	476784	7967517	3.32
87	1921928	423208	▓▓▓▓▓▓	3.13
88	1498720	334709	4546869	3.03
89	1164011	255211	3382858	2.91
90	908800	240160	2474058	2.72
91	668640	193515	1805418	2.70
92	475125	134925	1330293	2.80
93	340200	89760	990093	2.91
94	▓▓▓▓▓▓	63870	739653	2.95
95	186570	44533	553083	2.96
96	142048	▓▓▓▓▓	411035	2.89
97	▓▓▓▓▓▓	25134	300641	2.72
98	85280	18743	215381	2.53
99	66517	12472	148864	2.24
00	54045	12304	94819	1.75
01	41741	12136	▓▓▓▓▓	1.27
02	29605	11968	▓▓▓▓▓	.79
03	17637	11▓01	5836	.33
04	▓▓▓▓	5836		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Seventy-Nine Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m}}$
0 & 79	10810000	2746667	41206177	3.81
1.. 80	8063333	1552310	33142844	4.11
2.. 81	6511023	1237373	26631821	4.09
3.. 82	5273650	913596	21358171	4.05
4.. 83	4359754	764141	16998417	3.90
5.. 84	3595613	624793	13402804	3.73
6.. 85	2970820	550822	10431984	3.51
7.. 86	2419998	485343	8011966	3.31
8.. 87	1934656	428280	6077330	3.14
9.. 88	1506376	337116	4570954	3.03
10.. 89	1169260	256058	3401694	2.91
11.. 90	913202	241202	2488192	2.73
12.. 91	672000	194400	1816492	2.70
13.. 92	477600	135510	1338892	2.80
14.. 93	342090	90090	996802	2.91
15.. 94	252000	64170	744802	2.96
16.. 95	187830	44793	556972	2.97
17.. 96	143037	31869	413935	2.89
18.. 97	111168	25306	302767	2.72
19.. 98	85862	18872	216905	2.53
20.. 99	66990	12567	149915	2.24
21..100	54423	12388	95492	1.75
22..101	42035	12220	53457	1.27
23..102	29815	12052	11111	.79
24..103	17763	11884	5879	.33
25..104	5879	5879		

Difference of Age Eighty Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 80	9530000	2448142	34403165	3.61
1.. 81	7081657	1441977	27411278	3.87
2.. 82	5639775	1108073	21771503	3.86
3.. 83	4531702	829760	17239801	3.80
4.. 84	3701942	677277	13537859	3.65
5.. 85	3024665	574573	10513194	3.48
6.. 86	2450092	498268	8063102	3.29
7.. 87	1951824	435472	6111278	3.13
8.. 88	1516352	341111	4594926	3.03

TABLE XL. 1069

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty Years—continued.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
1175233	257011	3419531	2.91
917320	242065	2502373	2.73
675255	195255	1827118	2.71
480000	136128	1347118	2.81
343872	90472	1003246	2.91
253400	64400	749846	2.96
169000	44997	560846	2.97
144003	32061	416843	2.89
111942	25478	304901	2.72
86464	19001	218437	2.53
67463	12653	150974	2.24
54810	12481	96164	1.75
42329	12304	53835	1.27
30025	12136	23810	.79
17889	11968	5921	.33
5921	5921		

Difference of Age Eighty-One Years.

Number of Living. l_m, l_{m_1} D_{m, m_1}	Decrement. $l_m. l_{m_1} - l_{m+1}.l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
8370000	2235775	28563658	3.41
6134225	1287908	22429433	3.66
4846317	998071	17583116	3.63
3847946	733836	13735170	3.57
3114110	619611	10621060	3.41
2494499	518403	8126561	3.26
1976096	446288	6160465	3.11
1529808	346792	4620657	3.02
1183016	261010	3437641	2.91
922006	243706	2515635	2.73
678300	195975	1837835	2.71
482325	136725	1355010	2.81
345600	90880	1009410	2.92
254720	64670	754690	2.96
190050	45150	564640	2.97
144900	32202	419740	2.90
112698	25633	307042	2.73

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty-One Years—*continued.*

Ages.	Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
17 & 98	87066	19130	219976	2.53
18.. 99	67936	12739	152040	2.24
19..100	55197	12567	96843	1.75
20..101	42630	12395	54213	1.27
21..102	30235	12220	23978	.79
22..103	18015	12052	5963	.33
23..104	5963	5963		

Difference of Age Eighty-Two Years.

Ages.	Number of Living. $\dfrac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 82	7250000	1978797	23402718	3.23
1.. 83	5271203	1156112	18131515	3.44
2.. 84	4115091	878161	14016424	3.41
3.. 85	3236930	668664	10779494	3.33
4.. 86	2568266	556354	8211228	3.20
5.. 87	2011912	463080	6199316	3.08
6.. 88	1548832	355318	4650484	3.00
7.. 89	1193514	265402	3456970	2.90
8.. 90	928112	246347	2528858	2.72
9.. 91	681765	197265	1847093	2.71
10.. 92	484500	137226	1362593	2.81
11.. 93	347274	91274	1015319	2.92
12.. 94	256000	64960	.759319	2.97
13.. 95	191040	45335	568279	2.97
14.. 96	145705	32305	422574	2.90
15.. 97	113400	25746	309174	2.73
16.. 98	87654	19245	221520	2.53
17.. 99	68409	12825	153111	2.24
18..100	55584	12653	97527	1.76
19..101	42931	12481	54596	1.27
20..102	30450	12309	24146	.79
21..103	18141	12136	6005	.33
22..104	6005	6005		

TABLE XL. 1671

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty-Three Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 83	6230000	1754131	18943163	3.04
1.. 84	4475869	1014214	14467314	3.23
2.. 85	3461655	792097	11005659	3.18
3.. 86	2669558	598150	8336101	3.12
4.. 87	2071408	494504	6264693	3.02
5.. 88	1576904	368548	4687789	2.97
6.. 89	1208356	272008	3479433	2.88
7.. 90	936348	250068	2543085	2.72
8.. 91	686280	199305	1856805	2.71
9.. 92	486975	138135	1369830	2.81
10.. 93	348840	91600	1020990	2.93
11.. 94	257240	65240	763750	2.97
12.. 95	192000	45536	571750	2.98
13.. 96	146464	32434	425266	2.90
14.. 97	114030	25830	311256	2.73
15.. 98	88200	19329	223056	2.53
16.. 99	68871	12900	154185	2.24
17..100	55971	12739	98214	1.76
18..101	43232	12567	54982	1.27
19..102	30665	12395	24317	.79
20..103	18270	12223	▮▮▮▮	▮▮
21..104	6047	6047		

Difference of Age Eighty-Four Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 84	5290000	1524855	16134814	2.86
1.. 85	3765145	910252	11369369	3.02
2.. 86	2854893	701789	8514476	2.98
3.. 87	2153104	529568	6361372	2.95
4.. 88	1623536	393279	4737836	2.92
5.. 89	1230257	282265	3507579	2.85
6.. 90	947992	255622	2559587	2.70
7.. 91	692370	202170	1867217	2.70
8.. 92	490200	139578	1377017	2.81
9.. 93	350622	92222	1026395	2.93

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty-Four Years—*continued.*

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
10 & 94	258400	65470	767995	2.97
11.. 95	192930	45730	575065	2.98
12.. 96	147200	32576	427865	2.91
13.. 97	114624	25934	313241	2.73
14.. 98	88690	19390	224551	2.53
15.. 99	69300	12951	155251	2.24
16..100	56349	12816	96902	1.75
17..101	43533	12653	55369	1.27
18..102	30880	12481	24489	.79
19..103	18399	12309	6090	.33
20..104	6090	6090		

Difference of Age Eighty-Five Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 85	4450000	1344813	11907378	2.67
1.. 86	3105187	802603	8802191	2.83
2.. 87	2302584	615016	6499607	2.82
3.. 88	1687568	420930	4812039	2.85
4.. 89	1266638	301464	3545401	2.80
5.. 90	965174	264194	2580227	2.67
6.. 91	700980	206430	1879247	2.68
7.. 92	494550	141606	1384697	2.80
8.. 93	352944	93224	1031753	2.92
9.. 94	259720	65920	772033	2.97
10.. 95	193800	45887	578233	2.98
11.. 96	147913	32713	430320	2.91
12.. 97	115200	26048	315120	2.74
13.. 98	89152	19467	225968	2.53
14.. 99	69685	12985	156283	2.24
15..100	56700	12873	99583	1.75
16..101	43827	12732	55756	1.27
17..102	31095	12567	24661	.79
18..103	18528	12395	6133	.33
19..104	6133	6133		

TABLE XL. 1673

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty-Six Years.

.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
36	3670000	1165544	9227424	2.51
37	2504456	699728	6722968	2.68
38	1804728	488134	4918240	2.73
39	1316594	322878	3601646	2.74
90	993716	280031	2607930	2.62
91	713685	212985	1894245	2.65
92	500700	144624	1393545	2.78
93	356076	94636	1047469	2.91
94	261440	66650	776029	2.97
95	194790	46210	581239	2.98
96	148580	32822	432659	2.91
97	115758	26158	316901	2.74
98	89600	19552	227301	2.54
99	70048	13033	157253	2.25
00	57015	12915	100238	1.76
01	44100	12795	56138	1.27
02	31305	12648	24833	.79
03	18657	12481	6176	.33
04	6176	6176		

Difference of Age Eighty-Seven Years.

.	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
37	2960000	997048	7052980	2.38
38	1962952	554953	5090028	2.59
39	1407999	375091	3682029	2.62
90	1032908	299118	2649121	2.56
91	734790	225015	1914331	2.61
92	509775	149271	1404556	2.76
93	360504	96744	1044052	2.90
94	263760	67680	780292	2.96
95	196080	46741	584212	2.98
96	149339	33059	434873	2.91
97	116280	26246	318593	2.74
98	90034	19634	228559	2.54
99	70400	13088	158159	2.25
00	57312	12967	100847	1.76
01	44345	12845	56502	1.27
02	31500	12717	25002	.79
03	18783	12564	6219	.33
04	6219	6219		

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Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Eighty-Eight Years.

Ages.	Number of Living. $\frac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m_1, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 88	2320000	788559	5343972	2.30
1.. 89	1531441	426823	3812531	2.49
2.. 90	1104618	340848	2707913	2.45
3.. 91	763770	238920	1944143	2.55
4.. 92	524850	157812	1419293	2.70
5.. 93	367038	99998	1052255	2.87
6.. 94	267040	69220	785215	2.94
7.. 95	197820	47492	587395	2.97
8.. 96	150328	33454	437067	2.91
9.. 97	116874	26434	320193	2.74
10.. 98	90440	19699	229753	2.54
11.. 99	70741	13141	159012	2.25
12..100	57600	13024	101412	1.76
13..101	44576	12901	56836	1.27
14..102	31675	12775	25161	.79
15..103	18900	12639	6261	.33
16..104	6261	6261		

Difference of Age Eighty-Nine Years.

Ages.	Number of Living. $\frac{l_m \cdot l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 89	1810000	608538	4004955	2.21
1.. 90	1201462	384667	2803493	2.33
2.. 91	816795	271245	1986698	2.43
3.. 92	545550	167658	1441148	2.64
4.. 93	377892	106012	1063256	2.81
5.. 94	271880	71600	791376	2.91
6.. 95	200280	48618	591096	2.95
7.. 96	151662	34014	439434	2.90
8.. 97	117648	26746	321786	2.74
9.. 98	90902	19842	230884	2.54
10.. 99	71060	13181	159824	2.25
11..100	57879	13079	101945	1.76
12..101	44800	12960	57145	1.28
13..102	31840	12835	25305	.79
14..103	19005	12705	6300	.33
15..104	6300	6300		

TABLE XL.   1875

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Ninety Years.

	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot m_1 - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
90	1420000	531595	2944219	2.07
91	888405	304980	2055814	2.31
92	583425	190620	1472389	2.52
93	392795	112875	1079598	2.75
94	279920	76010	799673	2.85
95	203910	50362	595763	2.93
96	153548	34856	442215	2.88
97	118692	27188	323523	2.73
98	91504	20081	232019	2.54
99	71423	13283	160696	2.25
00	58140	13123	102456	1.76
01	45017	11017	57439	1.28
02	32000	12896	25439	.80
03	19104	12769	6335	.33
04	6335	6335		

Difference of Age Ninety-One Years.

	Number of Living. $l_m \cdot l_{m_1}$ D_{m, m_1}	Decrement. $l_m \cdot l_{m_1} - l_{m+1} \cdot l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
91	1050000	415425	2157632	2.06
92	634575	214509	1573457	2.48
93	420066	129106	1102991	2.63
94	290960	81020	812031	2.79
95	209940	53609	602091	2.87
96	156331	36163	445760	2.85
97	120168	27852	325592	2.71
98	92316	20420	233276	2.51
99	71896	13459	180860	2.24
00	58437	13217	102943	1.76
01	45220	13065	57723	1.28
02	32155	12955	25568	.80
03	19200	12832	6368	.33
04	6368	6368		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Ninety-Two Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 92	750000	293106	1597840	2.13
1 .. 93	456894	145734	1140946	2.50
2 .. 94	311160	92940	829786	2.67
3 .. 95	218220	57266	611566	2.80
4 .. 96	160954	38608	450612	2.80
5 .. 97	122346	28882	328266	2.68
6 .. 98	93464	20930	234802	2.51
7 .. 99	72534	13710	162268	2.24
8 ..100	58824	13373	103444	1.76
9 ..101	45451	13151	57993	1.28
10 ..102	32300	13007	25693	.80
11 ..103	19293	12893	6400	.33
12 ..104	6400	6400		

Difference of Age Ninety-Three Years.

Ages.	Number of Living. $\frac{l_m . l_{m_1}}{D_{m, m_1}}$	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\frac{N_{m, m_1}}{D_{m, m_1}}$
0 & 93	540000	201560	1197044	2.22
1 .. 94	338440	105070	858604	2.54
2 .. 95	233370	66068	625234	2.68
3 .. 96	167302	41338	457932	2.74
4 .. 97	125964	30806	331968	2.64
5 .. 98	95158	21722	236810	2.49
6 .. 99	73436	14090	163374	2.22
7 ..100	59346	13594	104028	1.75
8 ..101	45752	13287	58276	1.27
9. 102	32465	13085	25811	.80
10 ..103	19380	12949	6431	.33
11 ..104	6431	6431		

TABLE XL. 1077

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Ninety-Four Years.

ae.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
94	400000	146170	901279	2.25
95	253830	74913	647449	2.55
96	178917	47985	468532	2.62
97	130932	32960	337600	2.58
98	97972	23205	239628	2.45
99	74767	14683	164861	2.21
00	60084	13926	104777	1.74
.01	46158	13478	58619	1.27
102	32658	13201	25939	.79
103	19479	13019	6460	.33
104	6460	6460		

Difference of Age Ninety-Five Years.

ae.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
95	300000	105397	680415	2.93
96	194603	54581	485812	2.50
97	140022	38186	345790	2.47
98	101836	24858	243954	2.40
99	76978	15805	166976	2.17
100	61173	14441	105803	1.73
101	46732	13762	59071	1.26
102	32970	13362	26101	.79
103	19608	13115	6493	.33
104	6493	6493		

Difference of Age Ninety-Six Years.

ae.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Carlisle Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
96	230000	77702	511477	2.22
97	152298	43392	359179	2.36
98	108906	28892	250273	2.30
99	80014	17033	170259	2.13
100	62982	15403	107277	1.70
101	47579	14199	59698	1.25
102	33380	13598	26318	.79
103	19782	13246	6536	.33
104	6536	6536		

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age Ninety-Seven Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 97	180000	61546	379082	2.11
1.. 98	118454	32885	260628	2.20
2.. 99	85569	20103	175059	2.05
3..100	65466	16480	109593	1.67
4..101	48986	15001	60607	1.24
5..102	33985	13957	26622	.78
6..103	20028	13434	6594	.33
7..104	6594	6594		

Difference of Age Ninety-Eight Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 98	140000	46929	276057	1.97
1.. 99	93071	23060	182986	1.97
2..100	70011	19093	112975	1.61
3..101	50918	15928	62057	1.22
4..102	34990	14599	27067	.77
5..103	20391	13715	6676	.33
6..104	6676	6676		

Difference of Age Ninety-Nine Years.

Ages.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} - l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
0 & 99	110000	33851	194763	1.77
1..100	76149	21696	118614	1.56
2..101	54453	18083	64161	1.18
3..102	36370	15376	27791	.76
4..103	20994	14197	6797	.33
5..104	6797	6797		

TABLE XL.

1079

Carlisle Rate of Mortality for Two Joint Lives.

Difference of Age One Hundred Years.

;ee.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} — l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
:100	90000	30773	126942	1.41
.101	59227	20332	67715	1.14
.102	38895	17073	28820	.74
.103	21822	14824	6998	.32
.104	6998	6998		

Difference of Age One Hundred and One Years.

a.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} — l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
:101	70000	27695	72916	1.04
102	42305	18968	30611	.72
103	23337	16063	7274	.31
104	7274	7274		

Difference of Age One Hundred and Two Years.

ges.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} — l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
102	50000	24617	33162	.66
103	25383	17613	7779	.31
104	7779	7770		

Difference of Age One Hundred and Three Years.

ges.	Number of Living. $l_m . l_{m_1}$ D_{m, m_1}	Decrement. $l_m . l_{m_1} — l_{m+1} . l_{m_1+1}$	Sum of Living at Higher Ages. N_{m, m_1}	Curtate Expectation. $\dfrac{N_{m, m_1}}{D_{m, m_1}}$
103	30000	21539	8461	.28
.104	8461	8461		

Showing the Probabilities and Mean Duration of Life resulting from the total Experience of the Amicable Society, from April 5, 1808, to April 5, 1841. The Experience is carried 10 Years later than that in Table p. 238.

Ages.	Four times the Number exposed to the chances of Mortality between the Age opposite and the next Age.	Four times the Number who died between the Age opposite and the next Age.	Logarithm of the Probability thence arising, that a Life, having completed the Age opposite, will live over one Year.	Logarithm of the Probability of living over one Year adjusted.	Logarithm of the Number living at each Age.	Number who complete the Age opposite.	Number who die in their next Year.	Annual Risk.	Mean Duration of Life.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21	188	2	99535	....	....	.....	....	.....	......
22	272	4	99356	....	....	.....	....	.....	......
23	393	2	99779	....	....	.....	....	.....	......
24	570	2	99848	99822	00000	10000	41	.0041	38.649
25	776	4	99776	99811	99822	9959	43	.0043	37.895
26	1012	2	99914	99800	99633	9916	46	.0046	36.968
27	1242	6	99790	99787	99433	9870	48	.0049	36.137
28	1495	10	99709	99775	99220	9822	51	.0052	35.313
29	1804	8	99807	99761	98995	9771	53	.0055	34.493
30	2120	14	99712	99747	98756	9718	57	.0058	33.681
31	2459	18	99681	99731	98503	9661	59	.0062	32.875
32	2789	26	99593	99716	98234	9602	63	.0065	32.076
33	3118	14	99804	99698	97950	9539	66	.0069	31.284
34	3403	20	99744	99679	97648	9473	70	.0074	30.499
35	3708	30	99647	99661	97327	9403	73	.0078	29.721
36	3997	34	99629	99640	96938	9330	77	.0083	28.950
37	4235	40	99588	99619	96628	9253	81	.0087	28.187
38	4425	40	99606	99595	96247	9172	85	.0093	27.431
39	4644	36	99662	99571	95842	9087	89	.0098	26.684
40	4892	48	99571	99545	95413	8998	94	.0104	25.944
41	5126	54	99540	99518	94958	8904	98	.0110	25.213
42	5297	62	99489	99488	94476	8806	104	.0117	24.488
43	5419	60	99516	99458	93964	8702	108	.0124	23.772
44	5526	82	99351	99425	93422	8594	112	.0132	23.064
45	5580	68	99468	99390	92847	8482	119	.0140	22.365
46	5584	54	99578	99354	92237	8363	123	.0148	21.674
47	5626	90	99300	99315	91591	8240	129	.0157	20.991
48	5626	90	99300	99273	90906	8111	135	.0166	20.317
49	5613	94	99266	99229	90179	7976	140	.0176	19.651
50	5600	110	99138	99183	89408	7836	146	.0187	18.994
51	5590	92	99279	99134	88591	7690	152	.0197	18.345
52	5618	104	99189	99082	87725	7538	158	.0209	17.704
53	5624	112	99126	99026	86807	7380	163	.0222	17.073
54	5603	108	99155	98967	85833	7217	170	.0235	16.448
55	5557	146	98844	98905	84800	7047	176	.0249	15.832
56	5507	138	98897	98839	83705	6871	181	.0264	15.223
57	5405	146	98810	98762	82544	6690	188	.0281	14.622
58	5368	138	98869	98677	81306	6502	195	.0300	14.030
59	5318	152	98740	98583	79983	6307	202	.0321	13.449
60	5266	226	98095	98475	78566	6105	211	.0345	12.878

TABLE XLI.—continued. 1081

wing the Probabilities and Mean Duration of Life resulting from the total
Experience of the Amicable Society, from April 5, 1808, to April 5,1841.
The Experience is carried 10 Years later than that in Table p. 238.

Four times the Number exposed to the chances of Mortality between the Age opposite and the next Age.	Four times the Number who died between the Age opposite and the next Age.	Logarithm of the Probability thence arising, that a Life, having completed the Age opposite, will live over one Year.	Logarithm of the Probability of living over one Year [adjusted]	Logarithm of the Number living at each Age.	Number who complete the Age opposite.	Number who die in their next Year.	Annual Risk.	Mean Duration of Life.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5092	208	98189	98349	77041	5894	220	.0373	12.320
4928	202	98182	98204	75390	5674	230	.0405	11.778
4720	160	98502	98046	73594	5444	239	.0440	11.254
4543	258	97461	97873	71640	5205	249	.0478	10.749
4258	232	97566	97690	69513	4956	257	.0518	10.264
4000	198	97795	97493	67203	4699	263	.0561	9.797
3795	138	98391	97285	64696	4436	269	.0606	9.349
3662	226	97233	97067	61981	4167	272	.0653	8.920
3389	265	96450	96839	59048	3895	274	.0702	8.508
3096	248	96374	96600	55667	3621	273	.0753	8.113
2864	228	96398	96352	52487	3349	270	.0806	7.733
2639	174	97038	96092	48839	3079	265	.0861	7.367
2428	234	95599	95812	44931	2814	259	.0919	7.014
2142	254	94518	95511	40743	2555	251	.0982	6.673
1846	172	95753	95192	36254	2304	241	.1048	6.345
1654	202	94343	94848	31446	2063	231	.1119	6.029
1428	140	95503	94460	26294	1832	219	.1194	5.725
1262	210	92096	94084	20774	1613	205	.1274	5.433
1018	142	93475	93662	14858	1408	191	.1358	5.153
861	142	92173	93208	08520	1217	176	.1448	4.884
704	118	92033	92723	01728	1041	161	.1543	4.626
562	112	90718	92202	94451		145	.1644	4.379
460		93053	91645	86653	735	128	.1750	4.142
378	96	87276	91048	78298	607	113	.1863	3.915
269	74	86028	90407	69346	494	98	.1982	3.697
195	48	87729	89721	59753	396	84	2108	3.487
144	16	94885	86987	49474	312	69	.2240	3.284
129		84945	88198	38461	243	58	.2380	3.088
82	22	86434	87355	26659	185	47	.2526	2.896
60	4	97004	86450	14014	138	37	.2680	2.706
56	20	80811	85482	00464	101	29	.2842	2.514
32	8	87506	84444	85946	72	21	.3011	2.314
24	4	92082	83331	70390	51	17	.3187	2.096
20		77815	82391	53721	34	11	.3267	1.843
	8	82367	79558	36112	23	9	.3750	1.515
4	0	69897	69897	15670	14	7	.5000	1.125
4	4	..	39794	85567	7	5	.7500	0.750
..	..	..	..	25361	2	2	..	0.500

Experience of the Equitable as published in 1834.

Age.	Number of Persons who attained to each Age.	Number living at each Age, Jan. 1, 1829.	Number who discontinued Assurances.	Died.	Age.	Number of Persons who attained to each Age.	Number living at each Age, Jan. 1, 1829.	Number who discontinued Assurances.	Died.
7	40	0	0	0		180341	3515	7560	1932
8	93	0	0	0	52	6500	205	171	136
9	119	0	7	0	53	6228	210	162	119
10	143	3	4	2	54	5961	210	170	107
11	174	1	7	0	55	5678	180	125	140
12	201	1	6	1	56	5443	158	132	137
13	246	3	5	0	57	5177	191	110	110
14	286	4	14	2	58	4906	179	98	105
15	316	7	5	2	59	4678	171	84	147
16	368	9	18	4	60	4394	162	96	115
17	408	5	18	4	61	4112	150	101	133
18	530	3	24	3	62	3819	144	62	118
19	750	5	26	7	63	3583	157	76	136
20	975	10	62	8	64	3274	112	45	135
21	1268	13	263	8	65	3040	123	49	136
22	1422	21	210	7	66	2773	124	53	137
23	1683	12	125	13	67	2461	115	57	121
24	2054	27	159	15	68	2168	92	29	125
25	2496	29	200	20	69	1922	93	29	113
26	2862	31	189	22	70	1689	70	23	123
27	3303	53	217	26	71	1471	96	14	105
28	3739	45	232	26	72	1256	66	14	91
29	4219	55	214	20	73	1085	60	6	73
30	4692	51	265	32	74	946	58	10	80
31	5129	49	251	32	75	800	59	6	81
32	5577	84	290	35	76	655	50	7	65
33	5894	88	273	49	77	534	39	6	55
34	6234	106	244	59	78	434	35	3	41
35	6568	105	249	66	79	355	24	5	46
36	6876	113	284	68	80	280	15	1	37
37	7146	136	290	73	81	227	15	4	43
38	7306	113	299	69	82	165	15	6	14
39	7493	140	270	89	83	130	4	3	17
40	7609	148	287	95	84	106	11	3	11
41	7640	150	260	81	85	81	7	1	13
42	7690	160	245	85	86	60	2	1	10
43	7725	157	279	74	87	47	2	1	11
44	7710	172	241	90	88	34	4	1	5
45	7677	177	244	87	89	24	1	..	6
46	7626	170	241	91	90	17	3	..	4
47	7553	205	228	90	91	10	1	..	3
48	7400	198	234	117	92	6	2	1	2
49	7240	194	182	111	93	1	..	..	..
50	7074	232	225	123	94	1	..	..	1
51	6787	230	194	126					
						266872	6930	9324	5144
	180341	3515	7560	1932					

TABLE XLIII.   546

...g the Probabilities of the Duration of Human-Life at all Ages from 10 to 97; deduced from the preceding Table.

Living.	Decrements.	Ages.	Living.	Decrements.	Ages.	Living.	Decrements.
5000	36	40	3922	43	70	1800	115
4964	36	41	3879	44	71	1685	115
4928	36	42	3835	44	72	1570	115
4892	36	43	3791	44	73	1455	115
4856	36	44	3747	45	74	1340	115
4820	36	45	3702	47	75	1225	114
4784	36	46	3655	47	76	1111	109
4748	36	47	3608	48	77	1002	105
4712	36	48	3560	49	78	897	101
4676	35	49	3511	50	79	796	96
4641	34	50	3461	52	80	700	93
4607	33	51	3409	55	81	607	90
4574	33	52	3354	58	82	517	85
4541	33	53	3296	62	83	432	83
4508	33	54	3234	64	84	349	73
4475	34	55	3170	66	85	276	61
4441	34	56	3104	70	86	215	50
4407	34	57	3034	75	87	165	42
4373	34	58	2959	79	88	133	34
4339	34	59	2880	84	89	99	22
4305	35	60	2796	88	90	77	18
4270	35	61	2708	90	91	49	14
4235	36	62	2618	91	92	35	11
4199	37	63	2527	93	93	24	9
4162	38	64	2434	95	94	16	7
4124	38	65	2339	100	95	9	5
4086	39	66	2239	105	96	4	3
4047	40	67	2134	108	97	1	1
4007	42	68	2026	111			
3965	43	69	1915	111		244091	5000

Showing the Expectations of Human Life at every Age from 10 to 97 ; deduced from Table XLIII., page 1002.

Age.	Expectation.	Age.	Expectation.	Age.	Expectation.
10	48.318	40	27.395	70	▮
11	47.665	41	26.693	71	8.259
12	47.009	42	▮	72	7.827
13	46.352	43	25.290	73	7.406
14	45.691	44	24.581	74	▮
15	45.029	45	▮	75	6.609
16	44.364	46	23.174	76	6.236
17	43.697	47	22.469	77	5.860
18	43.027	48	21.766	78	5.487
19	42.354	49	21.065	79	5.120
20	41.670	50	20.360	80	4.754
21	40.974	51	▮	81	4.406
22	40.266	52	18.977	82	▮
23	39.535	53	18.302	83	3.791
24	38.840	54	17.643	84	3.574
25	38.123	55	16.989	85	3.357
26	37.411	56	16.340	86	3.207
27	36.696	57	15.705	87	3.027
28	35.977	58	▮	88	2.890
29	35.255	59	14.491	89	2.803
30	34.530	60	13.911	90	2.559
31	33.809	61	13.347	91	2.316
32	33.084	62	12.789	92	2.043
33	32.364	63	12.231	93	1.750
34	31.647	64	11.680	94	1.375
35	30.934	65	11.134	95	1.055
36	30.217	66	10.609	96	.750
37	29.503	67	10.106	97	▮
38	28.793	68	9.618		
39	28.092	69	9.146		

TABLE XLV.

he Disorders (as certified to the Court of Directors) of which Persons
by the Equitable Society have died during Thirty-Two Years, from the
nuary 1801, to the 31st of December 1832.

DISEASE.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80, &c.	TOTAL.
. . . .	..	7	..	11	9	4	5	4	40
ctoris . . .	..	..	8	16	45	47	26	3	145
. . . .	..	..	1	2	..	..	1	..	4
. . . .	1	4	25	56	129	169	86	16	486
. . . .	..	..	..	2	20	26	22	4	74
. . . .	..	..	4	7	11	15	6	..	43
. . . .	..	..	2	5	14	15	4	3	43
. . . .	..	..	2	2	..	..	..	..	4
Iorbus . . .	..	..	2	5	6	9	5	1	27
ion . . .	4	23	63	83	81	66	18	1	339
a Fits . . .	..	..	..	4	1	3	..	..	8
atural and Old Age)	..	..	..	..	10	128	241	187	566
. . . .	..	..	..	3	2	1	1	1	8
not properly defined	..	..	9	11	20	27	12	..	79
. . . .	1	..	10	39	67	83	50	7	257
the Chest . .	..	1	3	23	52	59	42	3	183
. . . .	..	..	1	3	5	11	11	3	34
the Stomach and ve Organs .	..	2	9	18	28	31	22	9	106
Liver . . .	..	2	8	37	■	■	23	2	175
the Bladder and Passages .	..	..	3	9	25	44	41	6	128
. . . .	..	1	2	8	2	2	■	..	19
. . . .	..	1	2	7	6	7	3	..	26
eneral . . .	..	5	30	65	61	70	34	7	262
ilious . . .	..	1	5	10	10	8	2	1	37
Iervous . . .	..	3	3	13	9	9	5	..	42
nflammatory . .	..	3	4	6	10	5	6	..	32
utrid . . .	..	2	7	4	7	7	1	..	28
. . . .	..	..	2	6	8	14	7	1	38
tion of the Bowels .	2	2	14	20	26	44	16	2	126
——of the Lungs .	..	2	12	12	41	56	45	17	185
——of the Brain .	1	4	15	16	13	12	2	1	64
tion of the Chest ipneumony .	1	1	1	8	11	21	12	4	59
ion . . .	..	..	..	2	12	14	12	6	■
. . . .	..	..	..	1	1	..	1	..	3
. . . .	..	1	5	15	47	84	74	9	235
. . . .	..	..	..	1	1	2	..	..	■
. . . .	..	..	..	1	1	1	..	..	3
f a Blood Vessel .	1	..	12	19	19	22	9	..	82
Var . . .	1	1	1	1	..	..	..	..	4
. . . .	..	..	..	..	..	..	..	1	1
. . . .	..	..	..	..	1	2	7	2	12
. . . .	..	1	2	6	15	5	..	..	29
the Brain . .	..	..	1	3	4	1	..	..	■
	12	67	266	544	883	1173	856	294	4095

TABLE XLVI.

Showing the Value of an Annuity on the Joint Continuance of Three Lives
Equal Ages, according to the Carlisle Table of Mortality.

(Rate of Interest 5 per Cent.)

Common Age.	Value.	Common Age.	Value.	Common Age.	Value.
0	5.030	35	10.191	70	3.153
1	7.720	36	10.037	71	2.882 .
2	9.430	37	9.880	72	2.629
3	11.138	38	9.719	73	2.412 .
4	12.134	39	9.555	74	2.232
5	12.905	40	9.399	75	2.112
6	13.300	41	9.264	76	1.997
7	13.492	42	9.140	77	1.905
8	13.547	43	9.023	78	1.812
9	13.509	44	8.901	79	1.689
10	13.403	45	8.773	80	1.588
11	13.264	46	8.634	81	1.461 .
12	13.131	47	8.481	82	1.360
13	12.996	48	8.306	83	1.251 .
14	12.860	49	8.097	84	1.145
15	12.729	50	7.860	85	1.029
16	12.617	51	7.695	86	0.909
17	12.518	52	7.326	87	0.818
18	12.420	53	7.054	88	0.785
19	12.317	54	6.778	89	0.735 .
20	12.209	55	6.490	90	0.598
21	12.095	56	6.195	91	0.553
22	11.968	57	5.890	92	0.592
23	11.834	58	5.588	93	0.665
24	11.692	59	5.315	94	0.718
25	11.542	60	5.083	95	0.788
26	11.389	61	4.911	96	0.836
27	11.227	62	4.752	97	0.832
28	11.067	63	4.595	98	0.856
29	10.929	64	4.423	99	0.854
30	10.821	65	4.246	100	0.637 .
31	10.713	66	4.056	101	0.421
32	10.600	67	3.851	102	0.213
33	10.475	68	3.634	103	0.035
34	10.337	69	3.401		

TABLE XLVII. 1007

the Value of an Annuity on the Joint Continuance of Three Lives, according to the Carlisle Table of Mortality.

(Rate of Interest 3 per Cent.)

	Value.	Ages.	Value.	Ages.	Value.
:30	8.460	25, 50,&55	7.959	50, 75, & 80	2.499
-31	9.684	26—51—56	7.689	51—76— 81	2.349
-32	10.257	27—52—57	7.411	52—77— 82	2.220
-33	10.726	28—53—58	7.133	53—78— 83	2.086
-34	10.930	29—54—59	6.870	54—79— 84	1.942
-35	11.056	30—55—60	6.626	55—80— 85	1.796
-36	11.063	31—56—61	6.405	56–81— 86	1.652
-37	11.009	32—57—62	6.183	57—82— 87	1.530
-38	10.910	33—58—63	5.959	58—83— 88	1.437
-39	10.780	34—59—64	5.734	59—84— 89	1.334
-40	10.632	35—60—65	5.519	60—85— 90	1.184
-41	10.479	36—61—66	5.318	61—86— 91	1.109
-42	10.331	37—62 67	5.112	62—87— 92	1.095
-43	10.182	38—63 –68	4.900	63—88— 93	1.117
-44	10.029	39—64—69	4.673	64—89— 94	1.111
-45	9.877	40—65—70	4.439	65—90— 95	1.064
-46	9.732	41—66—71	4.192	66—91— 96	1.055
-47	9.588	42—67—72	3.953	67—92— 97	1.070
-48	9.438	43—68—73	3.729	68—93— 98	1.100
-49	9.270	44—69—74	3.520	69—94— 99	1.081
-50	9.088	45—70—75	3.336	70—95—100	0.946
-51	8.887	46—71—76	3.145	71—96—101	0.756
-52	8.676	47—72—77	2.971	72—97—102	0.509
-53	8.454	48—73—78	2.806	73—98—103	0.230
-54	8.215	49—74—79	2.637		

Showing the Value of an Annuity on Three Equal Joint Lives, deduced from the Observations made at Northampton.

Common Age.	4 per Cent.	Common Age.	4 per Cent.	Common Age.	4 per Cent.
1	5.309	36	8.448	71	2.810
2	8.251	37	8.309	72	2.627
3	9.632	38	8.165	73	2.448
4	10.661	39	8.017	74	2.277
5	11.170	40	7.865	75	2.119
6	11.707	41	7.714	76	1.985
7	12.058	42	7.567	77	1.855
8	12.266	43	7.423	78	1.720
9	12.298	44	7.276	79	1.563
10	12.200	45	7.126	80	1.400
11	12.043	46	6.972	81	1.245
12	11.865	47	6.813	82	1.092
13	11.678	48	6.650	83	.949
14	11.481	49	6.482	84	.860
15	11.274	50	6.317	85	.782
16	11.056	51	6.161	86	.716
17	10.845	52	6.011	87	.662
18	10.656	53	5.859	88	.646
19	10.490	54	5.705	89	.614
20	10.342	55	5.550	90	.563
21	10.222	56	5.393	91	.452
22	10.118	57	5.235	92	.337
23	10.012	58	5.076	93	.185
24	9.905	59	4.916	94	.085
25	9.796	60	4.755	95	.015
26	9.685	61	4.593		
27	9.572	62	4.432		
28	9.457	63	4.263		
29	9.340	64	4.093		
30	9.221	65	3.914		
31	9.099	66	3.733		
32	8.975	67	3.550		
33	8.848	68	3.366		
34	8.718	69	3.181		
35	8.585	70	2.995		

SHORT ACCOUNT

OF THE

LONDON ASSURANCE OFFICES.

THE evils arising from the uncertainty of human life in depriving individuals and families of their sources of income and support so constantly occur, that any means by which they may be provided against must be regarded as an important benefit to society. Extensive observations have fortunately shown that this uncertainty, so proverbial as regards individuals separately considered, does not exist as regards large masses of individuals; or at least that the fluctuations in the proportion of deaths to the number of living are sufficiently limited to admit of large establishments undertaking upon secure principles to guarantee the payment of an annual sum of money during the life of an individual, in consideration of one present sum, or to insure the payment of a sum at death in consideration of a sum or sums to be received during life.

Such are the objects of the various assurance offices; and the cases in which it is of importance to individuals to avail themselves of the existence of these institutions are numerous—some of which we will describe.

Every person engaged in a business or profession, depending on his future exertions for the accumulation of a sufficient amount to provide for the support of his family, may attain the object by an assurance on his life. This applies to gentlemen in the learned professions, public offices, and to those engaged in the army or navy.

Life assurance presents an eligible mode of providing for the younger branches of a family where the estate is entailed; where there are no children the wife may be provided for by assuring one life against another, which materially reduces the premium.

Persons holding lands by lease on lives, renewable by payment of a fine as the lives may drop, can provide against the inconvenience of sudden *demands by* assuring the lives on which the lease depends: the *same object may be* secured where the possession depends on the life

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of the lessor. Where the debtor is unable to meet immediately the demands of his creditor, it frequently happens that an arrangement is made for him to secure the amount by paying an annual premium for assuring the same.

It not unfrequently happens that the creditors themselves pay the whole of the premiums on the assurances. Such transactions are mere speculations, in which on the average they must expect to be losers, as they contribute towards the expenses and profits of the offices.

Persons advancing money on life annuities may secure the capital by assuring the life.

Life assurance offices may be divided into three separate classes: Proprietary Companies, in which a number of individuals jointly subscribe a capital, undertaking to secure the payment of the sum assured, reserving to themselves the whole of the profits ; Mutual Assurance Companies, in which the whole of the profits are divided amongst the assured ; and Mixed Proprietary Companies, partaking of the nature of the other two, a portion of the profits being reserved for the shareholders, and the remainder divided amongst the assured.

The mode of apportioning the profits varies in different companies, some applying it to the reduction of future annual payments, others adding to the amount assured by the policy. Some companies allow the assured to receive the profits in ready money, or to have them applied in reduction of the premium, or of the number of premiums, or to have an equivalent addition to the sum assured.

A brief account of the different offices will follow, chiefly extracted from their own advertisements, which, however, are not to be taken as a certain guide without inquiry as to the practice of the office in respect to liberality and satisfactory discharge of claims.

Such inquiries are necessary, since it has occurred that offices have unjustly refused at the time of decease to pay either the amount assured, or return the premiums, on the ground of error in the description of age, although no fraud was intended, or reasonably suspected; advantages have also been taken where policies have been many years in force, of accidental omissions to pay the premiums within the limited time, although tendered in a very short time after, causing the policies to be forfeited, for the surrender of which a valuable consideration would have been given but for such accidental omission of payment.

Legal objections of a technical nature have in many cases succeeded in inducing claimants to forego a part or the whole of their demands, without the office injuring itself by appearing publicly to be of a litigious character.

Such offices, we are happy to believe, are few in number ; but while any such exist, it is our duty to put the public on their guard, that they may make the necessary inquiries before effecting any assurances with them.

RATE OF MORTALITY.

As all calculations connected with Life Annuities or Assurances are based on the proportion of deaths to the number of living at the several ages of human existence, and the average rate of interest that may be made by the employment of money, it is of importance that these mate- rials of calculation should be obtained as accurately as possible.

The variations in the prices of stock may be ascertained by means of the periodical press ; but the rate of mortality to be employed for cal- ulating the premiums of assurance is by no means easy to determine upon. The first observations entitled to much attention were those at Chester and Northampton, from which valuable tables were formed by Dr. Price.

Since these were published, tables have been given by Mr. Milne, reduced from observations made at Carlisle; by Mr. Morgan, from the experience amongst the members of the Equitable Assurance Office, and by Mr. Finlaison from the rate of mortality amongst the Government Annuitants.

The favourable rates of mortality indicated by these observations, espe- cially the Equitable, added to the profits obtained by the old companies, have had the effect of calling various other assurance offices into exist- ence, offering every variety of inducement to the public to transact business with them.

The great evil to be apprehended from this competition is the reduc- ion of premiums to such an extent as will prove incompatible with the permanent stability of the office; and already have one or two offices advertised rates which, after deducting the commission allowed to the agents, will be found at some ages less than the premiums obtained by calculating from the Equitable Experience at 3 per cent interest.

Another office, which advertises the rates at which it will grant annui- ies and assurances, offers terms which allow in some instances an abso- ute interest of £5 15 per cent—as an examination will show that £100 may be laid out in the purchase of an annuity, out of the yearly receipts of which the premium for assuring the £100 in case of death may be paid, still leaving the difference of £5 15 to be enjoyed by the party. It is scarcely necessary to state what *must* be the result.*

The principal features to be traced amongst the inducements held out by offices recently established are, the advance of money to assurers upon approved personal security, and the permission to pay a portion only of the premium due, leaving the remainder to be repaid at compound interest, both of which plans are at variance with the original

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* This paragraph, which refers to the Independent West Middlesex, was written before that nest of swindlers had run its race, and exposed in its true colours the gross fraud upon the public.

object of Life Assurance, which was to encourage habits of prudence in individuals, by enabling them to make provision for their families.

When we consider the important nature of the trust undertaken by the conductors of a Life Office, and reflect upon the exposure to fraud, or to unexpected difficulties upon the part of the securities, to which, notwithstanding the most careful vigilance, an office is liable, it will be readily conceded that loans upon personal security form by no means a legitimate mode of investing the funds of an office.

Another circumstance deserving attention is, the prospect held out by offices connected with the British colonies in Australia, that, in consequence of the high rate of interest which they are enabled to make by investing money in the colonies, they are enabled to base their calculations upon a higher rate of interest than that which is usually adopted. This system we consider to be a dangerous one; for, whatever the rate of interest that may be obtained at the present time (and a high rate of interest is generally accompanied by commensurate risk), prudence dictates that the minimum rate should form the basis of operations which extend over a period of more than half a century.

The advocates for low rates base their arguments generally on the rate of mortality at the Equitable, without reflecting that the Equitable has advantages not common to a great number of the other offices. The spirit of competition amongst offices generally has its influence in producing a less careful selection of lives by the directors; and in the majority of instances dependence must be placed on the judgment and integrity of agents whose remuneration depends on the quantity of business they transact,—circumstances which may reasonably be supposed to affect the rate of mortality.

The experience of the Amicable, published a few years back, is by no means so favourable as that of the Equitable; and it is very probable that other offices have experienced a greater rate of mortality amongst the lives assured than the Amicable. Operations under the superintendence of some of the most able actuaries are now in progress for ascertaining the experience amongst assured lives, by combining the information derived from various offices.

We may here state that the ruinous effects of charging too low premiums will be many years in developing themselves so as to become apparent to the public generally, owing to the continued addition of fresh assurers, and to the premiums on policies for the whole period of life being more than sufficient to cover the risk for many years after the policy is effected : for instance, if we take the premiums charged by the Equitable at the age of 30, we find that £2 13 3 per cent would be charged for the whole term of life, but only £1 13 3 per cent for the risk for one year only ; nor would the value of the risk for any one year be equal to the annual premium charged, until after the age of 49, from which period the value of the risk in each year will be greater than the annual premiums to be received by the office. Assuming the

annual premium thus charged to be the true value of the risk, it follows that with lives of that age the office would have an accumulation of funds during 19 years, after paying the claims on account of deaths in each of those years; no portion of which accumulation is to be considered as profit, but a fund out of which the deficiencies of the future annual premiums shall be supplied in the discharge of claims.

Suppose, while the above premium is the correct one, that an office from false data should make a reduction thereon of 20 per cent, it would in that case be able to pay all the claims on it for nearly 17 years without the aid of fresh assurances, after which period there would be a deficiency; but with the constant addition of assurers it would be able to pay the claims made on it for many years afterwards.

This illustration we hope will show the difficulty to the public of judging of the solvency of an office; and to the admirers of very low rates we will state for their consideration, that offices whose rates are not amongst the lowest, when the period arrived for dividing the profits, have been obliged to inform the assurers that so many claims had been made on them that they had no surplus to divide.

ON THE DIVISION OF PROFITS.

To enable a company to determine what profit they have realized, a valuation of all their liabilities should be made, and of the premiums to be received thereon : the difference between the two is the amount to be reserved, and whatever they have above this amount may be considered as surplus capital, which may be apportioned as profit.

It is the common practice of offices to value the liabilities by the same table of mortality and rate of interest as the premiums were deduced from; but since many whose opinions have great influence recommend that a rate of mortality should be employed which may be assumed as representing that which will *actually* take place amongst the members of the office, we shall attempt to point out some objections to which such system is liable.

When the same rate of interest and table of mortality are employed as the premiums were calculated from, the present value of the sum assured at the time of issuing the policy is the same as the present value of the future premiums to be received; and as the number of years increase from the original date of the policy, the present value of the sum assured will increase, and that of the future premiums will decrease. In no case, therefore, will this mode of valuing cause the present value of the future premiums to appear to be greater than that of the sum assured ; and when the accumulation of premiums in hand is greater than the amount which according to the valuation ought to be reserved, the surplus denotes so much profit *realized* by the company, and as such may be appropriated by them, the sum remaining in hand being that for which *an office charging* similar rates would relieve them of their liabilities.

Offices which divide profits amongst the assured, in general charge comparatively high premiums, on the ground of rendering the company more secure : if, however, they value their policies by a table of mortality which would give a low scale of premiums, and appropriate their surplus according to such valuation, they place themselves in point of security in precisely the same situation as if they had originally charged the low scale of premiums; since the sum reserved, and the value of future premiums, amount together to just the present values of the annual premiums that would be charged by these low rates on the various lives, supposing new assurances effected at the time of the valuation.

If the rate of interest and mortality be assumed as what will actually obtain, and the whole surplus be divided, the sum reserved by the company, together with the future premiums to be received on the policies, will just enable them to discharge the various claims that will be made on them as the lives assured die off : it therefore follows that all the profits are anticipated, and that no future bonus can be declared but at the expense of new assurers.

Another and important objection to this mode is, that besides anticipating profits, it calculates as assets what should be considered as liabilities. An instance of this occurs in a statement of the valuation of the liabilities of an old-established office, in which, at all the ages below 34, the value of the premiums appears by the calculation greater than that of the liabilities, causing the circumstance alone of these lives being on the books, without reference to any premiums paid, to count as a considerable sum in hand, although every policy that may be discontinued, the present value of the amount assured by which is not by the system of calculation equal in amount to the present value of the annual premium, will operate as a diminution of the assets of the company; and it is to be presumed that, according to the usual practice of offices, a consideration would be given for the surrender of the policy.

By this system, if a life aged 20 had insured at the Equitable for £1000 just at the time of valuation, this circumstance alone would reckon as an addition of £140 to the assets, although the policy might be discontinued after the payment of one premium only ; and for thirteen years without making any reserve on account of premiums paid, its existence alone on the office books would appear as cash added to its funds.

From these considerations we think it will appear that, by valuing upon the same scale as that by which the premiums were calculated, a company adopts the prudent course of distributing the profits as they are *actually realized:* by adopting a scale which would give lower premiums than those charged, particular policies are considered as representing a certain amount of capital which will be withdrawn from the assets of the company if the policy be discontinued, and the profits distributed are not those which have been *realized*, but profits only which are *anticipated*.

After ascertaining the surplus of a company, the next point to be

letermined is the mode in which it shall be distributed amongst the assured.

At the Equitable, Rock, &c., at *each* period of division the profits are applied in proportion to the amount assured and the number of years the policy has been in existence. This mode of appropriation has the effect of giving far more than is just to the old assurers, as a slight examination will prove. By referring to the Equitable table of additions, we observe that a policy effected in 1776, in consideration of the premiums received thereon for ten years from 1819, had an addition made to the policy of £162: if we suppose the life in his 40th year at the time the insurance was effected, the annual premium received would be £3 8 per cent, which at 5 per cent compound interest, will amount to only £42 15 4; while the present value of the bonus, or the sum which the office would give in ready money, is £150 11 9.

A more equitable mode is adopted at some of the other offices. At the Law Life, Guardian, &c., the amount of premiums received on each policy with compound interest is ascertained, also the sum which is to be reserved by the company as the value of the policy : the difference between the two is taken, which represents the *proportion* of profit on the policy : then finding the total of the differences for all the policies, by a simple proportion the bonus on each policy is obtained, viz. :

As the total thus found is to the surplus to be divided, so is the sum which represents the *proportion* of profit on any policy to the addition to be made to such policy.

At the London, London Life, Metropolitan, National, Universal, &c., the profits are ascertained annually, and on each policy a certain per centage is deducted from the premium next falling due after the valuation. This system has been generally misunderstood, the reduction being supposed constant for the whole of life, whereas at each valuation it is declared on the premium for *one year* only. As the profits of an office are pretty steady when it has been some years in existence, the annual reductions exhibit greater uniformity than might generally be expected.

CONDITIONS OF ASSURANCE.

On making a proposal, the party to whom the policy is to be granted warrants the life proposed to be in good health, not afflicted with any disease which tends to shorten life, and not exceeding a certain age. In most offices particular diseases are specified, and a warranty is also given that the person whose life is proposed is not of intemperate habits. To enable the directors to judge of the eligibility of the risk, the party is required to appear and to produce certificates of health; where the appearances cannot be obtained, if the certificates are considered satisfactory *the assurance is* granted on payment of a fine, in addition to the *first annual premium.*

The policy generally contracts that the policy shall be void if the warranty be false; if the annual premiums be not duly paid; if the life assured shall go beyond certain limits without consent of the Company; and when the policy is effected in the name of the life assured, the policy is forfeited in the event of death by suicide, duelling, or the hands of justice. In some offices, when the policy has been a certain number of years in existence the amount is paid in full, where a *bona fide* assignment has been made.

As the policy acquires a value which increases with the length of the time it has been in force, the possessor, if inclined to discontinue it, may surrender it for a sum of money to the office, or to any other party. Private individuals, before purchasing a policy, should endeavour to learn the chance of the life assured committing any act contrary to the conditions thereof, so as to cause it to become void, and the premiums forfeited to the company.

The stamp duty on life assurance policies, as fixed by the 55th Geo. III. cap. 184, and 5 & 6 William IV., is

For sums not exceeding £50			£0 2 6
exceeding £50, and not exceeding	100		0 5 0
„ 100, and under	500		1 0 0
amounting to 500, „	1000		2 0 0
„ 1000, „	3000		3 0 0
„ 3000, „	5000		4 0 0
„ 5000, and upwards			5 0 0

ACHILLES.

Mixed Assurance Company.   Established A. D. 1841.   24, Lombard-street.

Loans to assurers on approved personal security.

The profits of the loan bank belong exclusively to the shareholders, with the addition of a remunerating deduction from all premiums paid monthly into the bank.

Interest at the rate of 5 per cent per annum will be paid upon the deposits of shareholders half-yearly, and the dividends upon the profits of the loan bank declared annually, after the accounts are audited, in the month of January.

A subscribed capital, acting as a guarantee to the policy-holders.

The premiums received, after deducting charges, are at the end of each month paid over to the loan bank, and interest immediately allowed thereon, so that the capital of the policy-holders is always bearing interest.

The participating policy-holders will, after the payment of five annual premiums, become entitled to the whole net profits of the life assurance, which, with the surplus guarantee fund, will be applied to the reduction of their subsequent premiums annually.

Individuals possessing real or personal property, officers in the army or navy, clergymen, professional men, merchants, tradesmen, and persons of respectability and character, if assured with this Association to the amount of £300 at least, for life, may obtain advances of £100, and upwards, for terms varying from three months to any other agreed period, upon either real or personal security, to be approved of by the Directors, including the security of policies effected by parties with this Association.

ALFRED.

Mixed Company. Established A.D. 1839. 51, Old Broad-street.

Four-fifths of all profits appropriated every five years, at the option of the assured, either in reduction of their annual premiums, or in addition to their policies.

The assured may obtain loans upon a new and advantageous plan, peculiar to this Society, the Directors being empowered to employ its funds in making advances to parties effecting assurances for life with the Association, upon security being given for the payment of the future premiums upon their policies, and for the interest payable on such loans.

Policies made payable at 60, or other ages, whereby parties may themselves reap the fruits of their savings, and realize a provision for after-life, at an age when they may wish to retire from active employment, the Association undertaking to return a fixed proportion of the premiums paid on policies of this description in case of surrender.

Persons assuring the lives of others as security for money, or as nominees in leases and otherwise, may, by the payment of a small extra premium, be relieved from the risk of the party vitiating the policy by going abroad.

The assured may reside in any part of Europe, and in the British colonies in Australia, Cape of Good Hope, and North America, without extra charge.

Persons allowed to go to other parts of the world without payment of any further premium, upon a previous understanding with the Directors, that in the event of death in certain countries, or in their voyage to and from them, a fixed deduction, commensurate with the risk (according to tables specially calculated for this Association), will be made from the sums which, under ordinary circumstances, would become payable on the policies.

Annuities granted on an entirely new principle of participation in profits.

Policies effected on their own lives by persons who shall die by suicide or duelling will remain in force to the extent of such *bonâ fide* interest as any other person shall have acquired therein ; and the Directors have power, in case of any death by such means, to pay to the widow or family

of the deceased, by way of gratuity, a sum equal to the amount which the Association would have paid for the surrender of the policy on the day of the death of the party assured. Policies effected by third parties on the lives of persons so dying will not thereby be rendered void.

ALBION.

Proprietary Company.   Established a.d. 1805.
42, New Bridge-street, Blackfriars.

Policies granted by this Company to persons on their own lives, and legally assigned to other persons for valuable considerations, will not, so far as the *bonâ fide* interest of the assignees may extend, be invalidated, if the persons whose lives are assured should die by suicide, by duelling, or by the hands of justice.

ALLIANCE.

Mixed Assurance Company.   Established a.d. 1824.   Bartholomew-lane.

The profits appropriated to the assured, to be applied either to the reduction of the rate of the future premium to be paid on the policy, or to the increase of the sum assured ; the party to make his choice at the time the proposition for assurance is made.

In 1829 the bonuses were on an average 20 per cent on the premium.

AMICABLE.

Mutual Assurance Company.   Established a.d. 1706.
13, Serjeant's Inn, Fleet-street.

This society was originally instituted by Charter in 1706, and limited in number to 2000 members; each member on admission paid 5s. to the register, and 5s. to a joint stock, besides an annual subscription of £6 payable monthly, and of 4s. payable quarterly.

One-sixth of the annual premiums was to be divided amongst the nominees of those who died in the first year, £4000 amongst the nominees of those who died in the second year, £4000 the third year, £8000 the fourth, £10,000 the fifth year, and after that period £10,000, and as much more as might be agreed upon by a general court of members annually held.

In the event of the number of members being less than 2000, a proportionable reduction was to be made in the allowance. The fund remaining after paying the nominees, together with interest, to be laid up for the benefit of the members. The corporation was debarred from dealing in bills of exchange, keeping cash for other persons, or trading as bankers.

In January, 1730, a supplemental charter was granted, empowering the directors to administer oaths relating to the health of proposed members, and to the death of members, or to lost policies.

In 1757 the society engaged that the amount paid on the assured

each member should not be less than £125, and in 1750 not less than £150.

In May, 1790, the society obtained a further charter, extending the number of shares to 4000, and requiring an entrance fee of £7 10 0 from each member, and an annual subscription of £6 4 0.

By charter, in Oct., 1807, the number of shares was extended to 8000, and the premiums, instead of being, as formerly, the *same for all ages*, were apportioned according to the age. *Seven-eighths of the annual contributions* were to be divided in each year, and the remaining eighth part and other monies received to be reserved and improved, the society guaranteeing that the amount received on each share should not be less than £180, which was subsequently increased to £200.

By this charter the payments of former members appear to have been reduced to £5 per share.

By 4 Geo. IV., Feb. 12, 1823, the number of shares was extended to 16,000, and the annual dividends were to be ascertained by an average of five years.

By 6 Will. IV., April 12, 1836, the number of shares was extended to 32,000, and the state of the society's affairs on the 5th of April in each year until 1840 was to be ascertained by calculating the value of the liabilities at the rate of 4 per cent interest, and by the rate of mortality amongst the members, deduced from the experience of the society from 1807 to April 5, 1831; and the table of mortality which shall be used on every 5th April during any period of 10 years, commencing in 1841, or on the 5th April in any tenth succeeding year, shall be the table of mortality deduced from the further experience of the society since 5th April, 1831, up to 5th April on which each such period of 10 years will commence, combined with the previous experience of the society since 1807, but not at any time extending further than 50 years next preceding such 5th day of April.

The dividends per share in 1837 and three following years not to be less than £250, and after that period to be ascertained by an average of the gain or loss for the previous six years, ascertained by a valuation of the society's liabilities and assets, but at no time to be less than £200 per share.

The bye-laws enact that persons living in London or within 15 miles shall appear in person before the court of directors, or before three or more of them, and shall then voluntarily upon oath, or, being a quaker, upon solemn affirmation, declare that, to the best of his or her belief, he or she is in good health, and not subject to any particular illness tending to shorten life, and make answers to such other questions as may be put by the directors.

If the life to be proposed reside at a greater distance than 15 miles, a declaration in writing in the form prescribed by the statute 5 & 6 W. IV. c. 62, and taken and subscribed before some justice of the peace for the place in which he resides, must be transmitted to the directors, stating

the age, and that to the best of his belief he is, and for six months last past has been, in good health, and not subject to any particular illness tending to shorten life.

In cases of suicide, when the policy has been taken out by a party on his own life, if it shall have been assigned *bonâ fide*, and for a valuable consideration twelve months or more previous to death, such policy shall remain in force to the extent of the beneficial interest therein of the party to whom it shall have been so assigned.

ARGUS.

Proprietary Company.   Established A.D. 1833.   39, Throgmorton-street.

Charging the lowest rate of premium for the sum assured, thereby in effect giving to every policy-holder a fixed and certain bonus without risk, in lieu of the deferred and frequently delusive prospect of a periodical division of profits.

Premiums payable by a single payment, by payments for a limited number of years only, or by yearly, half-yearly, or quarterly payments.

Assurances granted upon lives up to the age of 80.

Advances made on policies when their value exceeds £50.

Policies of this Office purchased by the Company.

Tables upon an increasing and decreasing scale of payment.

The assured may reside in any part of Europe without paying any additional premium.

Claims payable in three months after proof of death, or immediately on allowing the discount.

Policies assigned as *bonâ fide* security, not void by death from suicide, duelling, or the hands of justice.

Moderate rates for foreign climates, and for persons suffering under disorders not attended with immediate danger to life.

Lapsed policies revived within three months upon payment of an additional sum of 5*s*. per cent.

Policies can also be effected on payment of premiums increasing or decreasing after the lapse of a certain number of years.

ASYLUM.

Proprietary Company.   Established A.D. 1824.   70, Cornhill.

Ascending and descending scale of premiums.   Portion of the premiums may be left unpaid, to be deducted, with 4 per cent compound interest at the time of claim, from the sum assured.

Advanced age, infirm health, peculiar form, or chronic disease, assured at special rates.

ATLAS.

Mixed Assurance Company.   Established A.D. 1808.   92, Cheapside.

Profits ascertained at the end of every seventh year, and appropriated either as an addition to the policy, or in reduction of the annual

nium, or in rendering the parties assured free from all payments
r a fixed number of years.

he following table shows the total additions made to life policies for
000 effected in London, or through an agent in Great Britain, which
been in force for the twenty-one years ending at Christmas, 1837.

te of Policy.	Age at Commencement.	Annual Premium.	Bonus.	
			Gross Additions to the Sum assured.	Equivalent to the following per Centage on the Premiums paid to the Company.
		£. s. d.	£.	£. s. d.
:c. 25, 1816	25	24 0 10	338	66 18 11
do.	30	26 14 2	354	63 2 3
do.	35	29 18 4	379	60 6 6
do.	40	33 19 2	416	58 6 8
do.	45	38 19 2	461	56 6 11
do.	50	45 6 8	526	55 5 0
do.	55	53 3 4	626	56 1 4
do.	60	63 13 4	789	59 0 3

:quivalent reductions have been made in the future payments of pre-
m where the parties assured have desired to have the amount of
us so applied.

he next valuation will be made at Christmas, 1844, and policies
:ted before that date will participate in proportion to the time they
; then have been in force.

AUSTRALASIAN.

Mixed Company.   Established a.d. 1840.   126, Bishopsgate-street.

)ne-half the profits to be divided amongst the assured and annuitants.
'or the profits to which the assured may become entitled a separate
cy will be granted, exempt from payment of premium.
\scending and descending scales of premium.
;pecial rates for the Australasian colonies.
'olicies, whether effected in England or the Australasian colonies,
; be made payable in either by endorsement.

BRITANNIA.

Proprietary Company.   Established a.d. 1837.   1, Princes-street, Bank.

\ table of increasing rates of premium, the holder having the option
paying a periodically-increasing rate, or of having the sum assured
iinished, according to an equitable scale of reduction.
\ table of decreasing rates of premium, the policy-holder having the

option of discontinuing the payment of all further premiums after 20, 15, 10, and even 5 years, and the policy still remaining in force,—in the first case, for the full amount originally assured, and in either of the three other cases, for a portion of the same according to a fixed and equitable scale endorsed upon the policy.

Females and others, to whom it may be inconvenient to appear at the Office, visited at their own houses by one of the medical officers.

All claims payable within one month after proof of death.

No proof of birth is required at the time a claim is made : the age of the assured, being in every case admitted in the policy, cannot under any circumstances be afterwards called in question.

Policies effected by parties on their own lives are not rendered void in case of death by duelling or the hands of justice. In the event of suicide, if the policy be assigned to a *bonâ fide* creditor, the sum assured will be paid without deduction : if the policy be not so assigned, the full amount of premiums received thereon will be returned to the family of the assured.

Policies having become forfeited, in consequence of the non-payment of the renewal premiums, may be revived, without the exaction of a fine, at any time within twelve calendar months, on the production of satisfactory evidence relative to the state of the health of the assured, and the payment of interest on the premiums due.

BRITISH COMMERCIAL.
Mixed Company. Established a.d. 1820. 35, Cornhill.

Profits to be declared every seven years amongst those who have paid six annual premiums, and appropriated either as additions to the sum assured, or in diminution of the annual premium. Participating and non-participating rates. In 1835 the first bonus was declared, amounting to £26 7 10 per cent on the premiums.

Persons insuring for the whole of life are permitted, if they desire it, to leave one-third of the premium for the first seven years unpaid, with an option to pay it then or at any other time, or to leave it as a permanent loan, to be deducted from the sum insured when the loss is paid, the interest on the loan being payable at the same time with the premium.

BRITISH EMPIRE.
Mixed Company. Established a. d. 1839. 5, Whitehall.

The assured for all ages up to 55 have the option of allowing one-half of their premiums to remain unpaid for seven years.

Participating and non-participating rates.

The assured on the participating scale to receive the whole of the profits derived from that branch of the business.

The first division to take place in February, 1845, and afterwards at the end of every succeeding period of five years.

CALEDONIAN.

Mixed Company. Established in London A.D. 1841. 27, Moorgate-street.

Participating and non-participating rates. Quarterly, half-yearly, and yearly premiums. Two-thirds of profits declared every seven years. Loans on the value of the policy. Policies not void by suicide if *bonâ fide* assigned, and notice given to the office one month prior to death.

CHURCH OF ENGLAND.

Mixed Company. Established A.D. 1840. 6, King William-street.

Tables are framed upon participating and non-participating rates.

Persons insuring upon the former will be entitled to share in the profits of that branch of business to the extent of four-fifths. The bonus will be declared at the end of seven years, in which all those assured for the whole period of life, who have paid five annual premiums, will participate; and the amount may either be added to the policy, or applied towards the reduction of the annual premiums, at the option of the assured.

Tables are framed on increasing and decreasing rates, to insure increasing or decreasing sums.

Premiums payable either yearly, half-yearly, or quarterly, or in one or more sums. Clergymen and others may insure against sickness or old age, as well as secure, at the same time, a provision for their families at death, by a small increased premium.

Persons subject to diseases which do not tend materially to shorten life may be insured upon payment of a moderate additional premium.

All risks may be converted into any other class, at the option of the assured, at any time.

Loans may be effected on the security of a policy, or policies will be purchased on liberal terms.

Age admitted in the policy ; and in no case to be disputed afterwards.

Death by suicide, duelling, or the hands of justice, to render the assurance null and void, except the policy be duly assigned to another party for a *bonâ fide* consideration.

Unopposed probates of the diocesan courts may be held sufficient to entitle claimants to receive or recover the amount of policies, without the expense and delay of a prerogative probate.

Policies forfeited by non-payment of premium renewable within twelve months, upon proof of the same state of health, and the payment of the premium in arrear, with interest thereon.

CITY OF GLASGOW.

Mixed Assurance Company. Established in London A. D. 1840. 57, Moorgate-street.

Two plans of assurance. One plan by which the assured are entitled to participate in the profits of the Company. This participation is to

the extent of the profits realized; and the bonus apportioned may be added to the policy, or applied in extinction of future premiums, at the option of the party interested. Another plan, by which the assured, at reduced premiums, secure a fixed sum, without addition from profits.

Premiums payable by an ascending scale, or by a limited number of payments, to be redeemed by the assured in a certain number of years.

Claims payable in three months after proof is given of the death of the assured.

Claims on policies effected in London discharged by the Company's agent there. The Company may be sued in any of the courts of record in London by serving the proper writ upon their agents.

CLERGY MUTUAL ASSURANCE SOCIETY.

Established a. d. 1829.   41, Parliament-street.'

Assurances effected for any sum not exceeding £2500.

The whole of the profits divided every five years amongst the assurers.

CLERICAL, MEDICAL, &c.

Mixed Company. Established a.d. 1825. 78, Great Russell-street, Bloomsbury.

The deed of constitution provides that the profits should be ascertained up to the 30th June, 1831, and subsequently every five years; within seven months of which respective periods, the greatest part of the profits divisible according to the provisions of the deed, are to be divided among the assured for life; every person assured by a policy of four years' standing being entitled to participate. The amount of profit to be added to the policy, or applied in reduction of the annual premium.

At the first septennial division in January, 1832, a bonus amounting on an average to 33 per cent on the premiums paid was declared.

Persons subject to such deviations from the common standard of health as do not essentially tend to shorten life may be assured upon paying a premium proportioned to the hazard.

CROWN.

Mixed Company. Established a.d. 1824. 33, New Bridge-street, Blackfriars.

Two-thirds of such profits as shall septennially be declared divisible will be apportioned among the assured for the whole term of life, and may be applied to the reduction of the future annual premiums, or to the increase of the sum assured as may be desired.

The following bonuses have been assigned to all policies of at least three years' standing, effected for the whole duration of life :—

First division in 1832, from 18s. to £2 12s. per cent per annum on the sums assured, varying with the age, being equivalent, on the average, to 26½ per cent on the premiums paid.

Second division, in 1839, from upwards of £1 to upwards of £3 per

:nt per annum on the sums assured, or, on the average, 33 per cent
ı the premiums paid for the preceding seven years.

Premiums may be paid in a limited number of annual sums instead
: by annual payments for the whole of life; the policy continuing to
ırticipate in profits after the payment of such premiums has ceased.

EAGLE.

Mixed Company. Established A.D. 1807. 3, Crescent, New Bridge-street.

At the end of every seven years the full value of each existing claim
determined, its amount retained, and the surplus apportioned. Four-
fths of the profits are allotted to the assured to be added to the policy,
r applied in diminution of the annual premiums. Distinct tables for
:male life. Increasing rates of premium.

ECONOMIC.

Mixed Company. Established A.D. 1823. 34, New Bridge-street, Blackfriars.

One-fourth of the present profits appropriated to the shareholder and
he remaining three-fourths to the assured at the expiration of every
fth year.

When a profit of £200,000 shall have been realized the shareholders
ill be paid off; and thenceforth the entire profits will be divided
mong the policy-holders.

A division of profits was declared up to the end of 1833, which
mounted on an average to £16 per cent upon the premiums paid,
ither to be added to the policies, or applied in reduction of annual
remiums; and on the 23rd of March, 1839, a second bonus was de-
lared, amounting to £31 per cent on the premiums paid during the
receding five years.

EDINBURGH.

Mixed Company. Established A.D. 1823. 11, King William-street.

Participating and non-participating scales.

At the first investigation (in August, 1835) a bonus of two-thirds of
ie Company's savings was allotted to the assured, varying from 20 to
3 per cent on the premiums paid. But, from the increase of the
ompany's business, and the consequently diminished risk to the pro-
rietors, it was resolved that at next septennial investigation (31st
ugust, 1842), and in future, one-fifth only should be transferred to the
ıarantee fund, and the remaining four-fifths of the profits allotted to the
ısured.

Profits may be applied in reduction of the annual premiums or in
ldition to the sum assured.

ENGLISH AND SCOTTISH LAW.

Mixed Company. Established a.d. 1839. 147, Strand.

The rates of premium have been constructed on the principle of affording to assurers in this office the option of either securing a fixed sum, or having it increased by a participation in the profits. By adopting the participating scale of rates, those who are assured for the whole term of life will derive the advantage of participating in the septennial division of the profits of the association, in the proportion of two-thirds to the assured and one-third to the proprietary.

Assurances may also be effected upon payment of a portion of the usual premiums, by the parties paying interest upon the balance reserved.

Individuals possessing real or personal property—officers in the army and navy—clergymen—professional men—merchants—tradesmen—and persons of respectability and character, may, if assured in this office, obtain advances for periods varying from three months to any other specified period; and in amounts of £50 and upwards, upon the following securities :—

Upon freehold and leasehold property in England, and the corresponding description of property in Scotland, either to be assigned, or deposited upon equitable mortgage; upon reversions, annuities, pensions, or any other description of assignable property or income, of adequate value.

Upon personal security, by the borrower procuring two or more responsible sureties to join him in a bond, or other security for repayment, and on condition of the life of one of the obligants being assured.

Upon the security of policies effected by parties with this association, according to the value at the time of the loan.

By allowing the assured to retain a portion of their premiums at interest.

EQUITABLE.

Mutual Assurance Company.   Established a.d. 1762.
New Bridge-street, Blackfriars.

Prior to the establishment of the Equitable in Sept. 1762, no office for granting life assurances existed which deduced the premiums payable thereon from scientific principles. This office at its commencement was supplied by Mr. Dodson with tables of premiums calculated from the probabilities of life according to the mortality in London for 20 years. This term for greater security included the year 1740, when the mortality was almost equal to a plague, so that the premiums were higher than they ought to have been according to the ordinary rate of mortality in London itself. In 1776, in consequence of its having been ascertained that the probabilities of life in the society had been higher than those in Mr. Dodson's Table, from which its premiums were com-

ted, and that the surplus stock amounted to nearly £30,000, the miums were reduced one-tenth; and in 1780, Dr. Price having med a great number of tables deduced from the probabilities of life Sweden, Chester, Northampton, and other places, recommended the ption of either the Chester or the Northampton to the Society in lieu the tables then in use. This recommendation was agreed to; but calculating the premiums by the Northampton Tables, they were nd so far below those which were then in use, that an addition of per cent was made to prevent too sudden a reduction in the annual ome of the Society; and to compensate the members for having con- buted to the success of the Society by the payment of higher pre- ums than were necessary, an addition was made to each £100 ured by them of 30s. for every payment which had been made prior the 1st January, 1782. Another investigation of the state of the ciety was finished in 1785, the result of which was a determination t only to take off the charge of 15 per cent made on the premiums luced from the Northampton Tables, but to make a further addition £1 to each £100 for every payment made prior to the 1st January, 66; so that every person assured before 1772 had 30 per cent added the sum originally assured. From 1786 to 1791, the proportion of ims to the premiums in each year appeared so favourable, that it was ught a further addition of £1 per cent might be made to the sums ured, without previous investigation; but in consequence of a ma- ity of the general court considering that this measure would afford langerous precedent, it was resolved, before any further measures cting the finances of the Society should be adopted, that an investi- ion should be made of the real state of its affairs to the 31st Dec. 92; the result of which was a further addition of 2 per cent, which, h the former additions, doubled every £100 assured prior to 1771; l in the course of two years another addition of £1 per cent was made all assurances of an earlier date than 1795. In consequence of some the members displaying an eagerness on the subject of additions to ir policies, which Mr. Morgan considered injurious to the real inte- ts of the society, a bye-law was made, by which it was ordained " that resolution should be binding which shall be made for increasing an wance to claimants, or for any mode of distributing any part of the ds or property of the Society, unless *four-fifths* of the members ing votes in the general court who shall be present at the court ereat such resolution shall be made or approved, shall be consenting reto." In 1799, when the finances of the society had been suffered improve without interruption during the seven preceding years, an estigation of affairs was commenced, and on the 24th of April, 1800, work being completed, an addition of 2 per cent for every payment or to January, 1800, was agreed to. At this period three bye-laws e *made: the first,* that a careful investigation of the value of each cy *be repeated* once in 10 years; the second, that no distribution

of the profits should take place without such previous investigation; and the third, that the present value of the additions never exceed two-thirds of the clear surplus stock of the society. In 1810, after the decennial investigation, an addition of 2½ per cent was made to the claims, which was also extended to every payment made between 1810 and 1820 by members whose assurances were dated prior to the 1st of January, 1810, and to all payments after the sixth made on assurances of a later date; but such prospective additions to cease in all cases on the 1st of January, 1820. In consequence of the great increase of members, some alarm began to be felt, lest they should by the strength of their numbers absorb the greater part of a surplus to which they had never contributed. This fear led to a most important bye-law in 1815, *limiting the number of future participators of the surplus at one and the same time to* 5000, *whenever the present members shall be reduced to that number.* In consequence of this law the Equitable holds out but very poor inducement to persons about to effect new insurances, who are desirous of participating in the profits of the society with which they may assure, as they not only have to wait many years before coming within the specified number of 5000, but are subject to the additional disadvantage of having the bonus per annum computed not from the original date of the policy, but from the date of being admitted within the first 5000. In 1820 the surplus exceeded £3,200,000, two-thirds of which was appropriated for the benefit of those members who were assured prior to 1814, by adding £2 10 per cent for every payment made before the 1st of January, 1820, and the like sum to those assured between 1814 and 1817, when they should respectively complete their sixth payment. To all assurances of an earlier date than 1771, the additions now amounted to more than £400, and to all assurances of a later date by 20 years, they exceeded £150 per cent. In 1826 a resolution was passed for paying the present value of the additions to the claims to those members who should choose to surrender them.

At the decennial meeting in 1830 for making additions, a bonus of 3 per cent was declared on each payment that had been made, and in 1840 a further bonus of 2½ per cent was declared on each payment. The effect of the various additions is shown in the following table:—

,BLE showing the Addition to be made to each Sum of £100, assured by THE EQUITABLE SOCIETY, when it shall become a Claim, agreeably to Orders of General Courts, holden in the Years 1782, 1786, 1791, 1792, 1795, 1800, 1809, 1819, 1829, and 1839.

DATE OF INSURANCE.	ADDITION MADE IN										WHOLE ADDITION.
	1782.	1786.	1791	1792.	1795.	1800.	1809.	1819.	1829.	1839.	
	£ s. d	£ s. d.	£ s. d	£ s. d.	£ s. d.	£ s. d.	£ s.	£ s.	£ s.	£ s.	£ s.
a May 1, 1777	7 10 0	9 0 0	15 0 0	32 0 0	19 0 0	48 0 0	92 10	107 10	159 0	157 10	687 0
a Year 1779	4 10 0	7 0 0	13 0 0	28 0 0	17 0 0	44 0 0	77 10	102 10	153 0	152 10	599 0
1784	..	2 0 0	8 0 0	18 0 0	13 0 0	34 0 0	65 0	90 0	138 0	140 0	507 0
1785	..	1 0 0	7 0 0	16 0 0	11 0 0	32 0 0	62 10	87 10	135 0	137 10	489 10
1786	..	..	6 0 0	14 0 0	10 0 0	30 0 0	60 0	85 0	132 0	135 0	472 0
1787	..	..	5 0 0	12 0 0	9 0 0	28 0 0	57 10	82 10	129 0	132 10	456 10
1788	..	..	4 0 0	10 0 0	8 0 0	26 0 0	55 0	80 0	126 0	130 0	439 0
1789	..	..	3 0 0	8 0 0	7 0 0	24 0 0	52 10	77 10	123 0	127 10	422 10
1790	..	..	2 0 0	6 0 0	6 0 0	22 0 0	50 0	75 0	120 0	125 0	406 0
1791	..	..	1 0 0	4 0 0	5 0 0	20 0 0	47 10	72 10	117 0	122 10	389 10
1792	..	..	..	2 0 0	4 0 0	18 0 0	45 0	70 0	114 0	120 0	373 0
1793	..	..	..	.	8 0 0	16 0 0	42 10	67 10	111 0	117 10	357 10
1794	..	..	..	..	2 0 0	14 0 0	40 0	65 0	108 0	115 0	344 0
1795	..	..	..	..	1 0 0	12 0 0	37 10	62 10	105 0	112 10	330 10
1796	..	..	..	..	..	10 0 0	35 0	60 0	102 0	110 0	317 0
1797	..	..	..	..	..	8 0 0	32 10	57 10	99 0	107 10	304 10
1798	..	..	..	..	..	6 0 0	30 0	55 0	96 0	105 0	292 0
1799	..	..	..	..	..	4 0 0	27 10	52 10	93 0	102 10	279 10
1800	..	..	..	..	..	2 0 0	25 0	50 0	■■■	100 0	267 0
1801	..	..	..	..	..	.	22 10	47 10	87 0	97 10	254 10
1802	..	..	..	..	..	.	20 0	45 0	84 0	95 0	244 0
1803	..	..	..	..	..	..	17 10	42 10	81 0	92 10	234 10
1804	..	..	..	..	..	..	15 0	40 0	78 0	90 0	223 0
1805	..	..	..	..	..	..	12 10	37 10	75 0	87 10	212 10
1806	..	..	..	..	..	..	10 0	35 0	72 0	85 0	202 0
1807	..	..	..	..	..	..	7 10	32 10	69 0	82 10	191 10
1808	..	..	..	..	..	..	5 0	30 0	66 0	80 0	181 0
the 5th ember, 1809	..	..	..	..	..	..	2 10	27 10	63 0	77 10	170 10
after 6th ember, 1809	..	..	..	..	..	..	..	27 10	63 0	77 10	168 0
1810	..	..	..	..	..	..	..	25 0	60 0	75 0	160 0
1811	.	..	..	..	..	.	..	22 10	57 0	72 10	152 0
1812	..	..	..	..	.	..	..	20 0	54 0	70 0	144 0
1813	..	..	..	..	..	..	..	17 10	51 0	67 10	136 0
1814	..	..	..	..	..	.	.	15 0	48 0	65 0	128 0
1815	..	..	..	..	..	..	..	12 10	45 0	62 10	120 0
1816	..	..	..	..	.	..	.	10 0	42 0	60 0	112 0

Date of Assurance.

	Policy No.	From			
1817	1 to 164	Jan. 1 1817 to April 24 1817		Dec. 31, 1831	20 0	20 0
1818	165 to 660	Apr. 24 1817 to Apr. 16 1818		Dec. 31, 1832	17 10	17 10
1819	661 to 1019	Apr 18 1818 to Feb. 4 1819		Dec. 31, 1833	15 0	15 0
1820	1021 to 1413	Feb. 5 1819 to Jan. 3 1820	Admitted to complete 5000 oldest Assurances.	Dec. 31, 1834	12 10	12 10
1820	1415 to 1856	Jan. 7 1820 to Dec. 22 1820		Dec. 31, 1835	10 0	10 0
1821	1857 to 2246	Dec.23 1820 to Nov. 30 1821		Dec. 31, 1836	7 10	7 10
1822	2247 to 2699	Dec. 1 1821 to Mar. 7 1823		Dec. 31, 1837	5 0	5 0
1823 and 1824	2700 to 3082	Mar. 7 1823 to May 34 1824		Dec. 31, 1838	2 10	2 10

If the Policy is dated on or *after* the 1st of May, the whole Addition, prior to 1801, will be £2 less than it is stated to be in the last column.

TABLE showing the Rate per Cent at which THE EQUITABLE SOCIETY will purchase Additions to the Claims until 1st of Jan. 1840, provided the price of the 3 per cent Consols shall not fall below £80 per cent.

Age.	Value.			Age.	Value.			Age.	Value.			Age.	Value.		
	£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
15	31	11	5	36	42	15	4	57	58	13	1	78	80	0	2
16	32	4	2	37	43	8	0	58	59	11	0	79	81	1	5
17	32	16	9	38	44	0	11	59	60	9	2	80	82	2	10
18	33	8	6	39	44	14	2	60	61	7	9	81	83	3	3
19	33	19	5	40	45	7	11	61	62	6	6	82	84	2	11
20	34	9	9	41	46	1	8	62	63	5	7	83	85	1	0
21	34	19	0	42	46	15	6	63	64	5	3	84	85	14	9
22	35	7	11	43	47	9	5	64	65	5	4	85	86	7	5
23	35	16	11	44	48	3	8	65	66	6	0	86	86	19	0
24	36	6	1	45	48	18	2	66	67	7	0	87	87	9	10
25	36	15	6	46	49	13	1	67	68	8	4	88	87	19	1
26	37	5	2	47	50	8	5	68	69	10	0	89	88	11	9
27	37	15	0	48	51	4	2	69	70	11	9	90	89	7	10
28	38	5	1	49	52	0	4	70	71	13	9	91	90	9	8
29	38	15	6	50	52	16	7	71	72	15	9	92	91	13	0
30	39	6	0	51	53	12	6	72	73	17	8	93	92	19	5
31	39	17	0	52	54	8	6	73	74	19	5	94	94	2	3
32	40	8	1	53	55	4	10	74	76	0	9	95	95	4	7
33	40	19	5	54	56	1	5	75	77	1	4				
34	41	11	1	55	56	18	4	76	78	0	9				
35	42	3	1	56	57	15	7	77	79	0	2				

EUROPEAN.

Mixed Company. Established A.D. 1819. 10, Chatham-place.

At the end of every seven years the assured for the whole term of life have an addition allotted to the sums insured by their respective policies, calculated on the amount of premiums paid thereon.

Parties may arrange to pay their premiums by annual, half-yearly, or quarterly payments.

FAMILY ENDOWMENT.

Mixed Company. Established A.D. 1835. 12, Chatham-place.

This society contracts to provide a sum of money to each child born after marriage on attaining the age of 14 or 21 years.

Life assurances granted at participating and non-participating rates. Four-fifths of the profits to the assured. The first division to take place in 1845, and afterwards annually, according to the average of the six preceding years and the current year. Profits to be applied in reduction of premium or increase of the sum assured.

FARMERS'.

Proprietary Company. Established A.D. 1840. 346, Strand.

One-tenth of the profits will be appropriated to such agricultural objects as the Directors may deem most deserving or most expedient;

another tenth to be reserved as a rest to add to the capital stock, and the remaining four-fifths annually divided among the shareholders. The agricultural objects at present suggested are, a provision for decayed farmers, to aid in the formation of farmers' clubs, and the distribution of prizes to agricultural labourers. To whatever objects the profits may be applied, the distribution will be placed at the disposal of the country Directors.

Ascending and descending scales.

One-half the premiums or policies for the whole of life may remain unpaid for five years.

FREEMASONS'.

Mixed Company. Established a.d. 1839. 11, Waterloo-place.

One-tenth of the profits applied to purposes connected with free-masonry.

Participating and non-participating members.

The whole of the profits arising from assurances amongst participators divided amongst the assured after deducting the expenses of management, and the above tenth for charitable purposes.

Parties assured will be allowed to leave half their premiums unpaid for the first five years, on payment of interest at £5 per cent.

GLOBE.

Proprietary Company. Established a.d. 1803. Pall Mall and Cornhill.

Assurances may be effected to the extent of £10,000 on a single life.

GUARDIAN.

Mixed Company. Established a.d. 1821. 11, Lombard-street.

Persons assured for the term of life will be entitled at the end of every seven years to one moiety of the profits of the Company, after a deduction of such sum per annum for the guarantee of the capital as the directors may think reasonable, the extent of which is however limited by the deed of settlement.

The profits may be received in ready money, or applied either in addition to the policy, or in reduction of the future premiums, provided such option be declared in writing three calendar months after the profits shall have been declared; if such option be not declared the profits will be added to the policies.

HAND-IN-HAND.

Mutual Assurance Company. Established a.d. 1836.
1, New Bridge-street, Blackfriars.

The entire profits to be divided annually, after 1842, among the assured, by adding to the policy or diminishing the premiums. Loans on two-thirds of the value of the policy after five years' standing. Par-

ticipating and non-participating rates. Policy on a party's own life not vitiated by suicide, when it has been *bonâ fide* assigned.

HOPE.

Mixed Company. Established a.d. 1807. 6, New Bridge-street.

Bonuses of two-thirds of the profits are declared septennially, and divided amongst the assured, in proportion to the sum assured and the duration of the policy; such bonuses are either payable with the sum assured, or may be applied in reduction of the annual premiums.

IMPERIAL.

Mixed Assurance Company. Established a.d. 1820. Sun-court, Cornhill.

Participating and non-participating rates. Two-thirds of the profits appropriated decennially amongst those entitled to participate.

On the 22nd of June, 1831, a bonus of £1 10 per cent per annum on the sums assured was declared on policies for the whole term of life effected on or before the 31st of January, 1827.

The present value of these additions may be received or applied in reduction of annual premiums; or upon the whole policy being surrendered a new insurance for a less sum may be obtained without any further premium.

Age when insured.	Sum Insured.	Annual Premium.	Addition at end of 10 Years.	Present Value of Addition.	Reduction in Premium		New Policy, without any Premium.
					For 10 Years only.	For the whole Term of Life.	
	£	£ s. d.	£	£ s. d.	£ s. d.	£ s. d.	£
20	1000	21 15 10	150	47 17 7	5 18 7	2 14 1	333
30	1000	26 14 2	150	58 0 10	7 15 6	3 12 9	365
40	1000	33 19 2	150	71 10 11	9 5 3	5 5 2	400
50	1000	45 6 8	150	86 4 9	11 15 3	7 16 0	438
60	1000	63 13 4	150	102 17 8	15 14 0	12 12 0	513

LAW LIFE.

Mixed Company. Established a.d. 1823. 187, Fleet-street.

Four-fifths of the profits are appropriated to the persons assured for the whole term of life.

At the end of every seven years, the profits divisible amongst the assured will be apportioned amongst such as shall have been so assured for the space of three years or upwards previously to those periods respectively, subject to the reservation of such a sum of money as the directors shall deem necessary to be carried forward to the period of the next septennial division for the benefit of the assured. For the amounts which shall be so apportioned, equivalent reversionary sums will be added to the policies. Policies granted on persons' own lives not

vitiated by suicide, so far as any other person or persons shall have a *bonâ fide* interest by assignment or equitable lien.

The following is a specimen table of bonuses added to policies of £1000 each, which had been in force during the first ten years of the existence of the society, and declared up to the 31st of Dec. 1840.

Age at Commencement.	Bonus.
	£.
20	316
25	325
30	338
35	359
40	391
45	431
50	483
55	553
60	681
65	885

Policies are purchased for a sum of money payable immediately; or by grant of a new policy without any further annual premium, for a sum to be agreed upon, payable at the decease of the life assured; and the person to whom such new policy is granted will be entitled in respect thereof to participate in the periodical divisions of the profits.

LEGAL AND GENERAL.

Mixed Company.   Established A.D. 1836.   10, Fleet-street.

Four-fifths of the profits to the assured to be added to the policy, or applied in reduction of the premium, or the present value given in money or applied to the extinction of premiums after a certain period. Loans on policies.   Lives assured wherever resident.   First division at the end of ten years from the commencement of the society; afterwards every seven years.   Participating and non-participating rates.

LICENSED VICTUALLERS'.

Mixed Assurance Company.   Established A.D. 1836.
Adelaide-place, London Bridge.

Bonus of two-thirds of the profits every five years to be added to the policy, or applied in reduction of the premium.   Yearly, half-yearly, and quarterly premiums.

LONDON, EDINBURGH, AND DUBLIN.

Mixed Company.　Established A.D. 1840.　3, Charlotte-street, Mansion House.

Participating and non-participating rates.

Those paying the participating rates will be entitled to the whole of the profits derived from the mutual branch of the business.

The sum assured may be made payable to the assured at any specific age, or to his representatives in the event of his death before that age.

LONDON AND WESTMINSTER.

Mutual Assurance Society.　Established A.D. 1839.　448, West Strand.

Participating and non-participating rates.

The average profits of one year are annually distributed by a reduction of the future premiums, or by a bonus added to the policy, at the option of the assured, to those members who have paid premiums for five entire years.

Policies are granted for the amount assured, to be received at the end of a term of years, although the party assured may be alive, but the assurance to be determined nevertheless by his death, though it should take place before the expiration of the term.

Premiums may be payable quarterly, half-yearly, or annually; and to obviate the necessity of allowing policies to drop in case of temporary inability to pay the premium, the Society will advance, on the security of the policy alone, its estimated value. Premiums may also be commuted into a single payment, or into a limited number of annual payments.

In case of death from duelling, suicide, or by the hands of justice, although the party may have assured his own life, the policy will not be invalidated to the extent of the *bond fide* interest of any other person or persons who may have acquired such interest, provided such interest has been acquired six months previous to such event occurring. If no such interest be vested in any other person or persons as aforesaid, the legal representatives of the deceased shall be entitled to receive a sum equal to the amount the Society would have given in the way of purchase for the policy on the day previous to such decease.

All claims accruing by death will be paid within one calendar month after satisfactory proof of death.

The Directors are empowered to allow the substitution or introduction as a member of a person of not earlier birth, in place of any member who may be desirous of withdrawing from the Society.

Policies, after five years' standing, on being deposited with the Society, may be kept in force by the payment each year of half the premium and interest on all arrears, in which case the remaining portion of the premium may be deducted from the sum assured when the policy becomes a claim.

LONDON ASSURANCE CORPORATION.

Mixed Company. Established A.D. 1721. 19, Birchin-lane.

Participating and non-participating rates.

The outline of the new plan adopted by the London Assurance Cor-
poration is,

That the premiums to be received annually from persons assuring
shall be accumulated for the payment, in the first instance, of the losses
which may be incurred, and of certain specified extraordinary expenses.

That at the expiration of the year 1836, and of every subsequent year,
an account and valuation of all engagements shall be made according to
certain defined principles.

That a sufficient portion of the accumulated fund shall be set apart to
answer all such engagements.

That one-fifth of the surplus shall be appropriated as follows: viz.,
two-thirds to the assured who shall have paid full five years' premiums,
be allowed in abatement of their premiums for the next year, and the
remaining third to the corporation; the other four-fifths of the surplus
fall into, and form part of, the fund for the next year's valuation.

That the sufficiency of the accumulating fund for the full payment of
all losses shall be guaranteed by the corporation.

That the ordinary expense of conducting the business at their prin-
cipal office shall be borne by the corporation.

LONDON LIFE ASSOCIATION.

Established A.D. 1806.   81, King William-street.

Is formed on the principle of mutual insurance, the profits being
applied to the reduction of the annual premiums after seven payments.
Separate scale for non-members.

All premiums become due annually on the 1st of July.

MEDICAL AND INVALID.

Mixed Company. Established A. D. 1841. 25, Pall Mall.

This Society has for a main object the assurance of lives affected by
disease, on equitable premiums commensurate with the particular risk;
whilst in addition it offers the benefits proposed by other offices in as-
suring on the usual rates ordinary or sound lives.

At this office, if restoration to permanent health be proved to the satis-
faction of the board, and should render a recurrence to the ordinary rate
of premium consistent with safety, the demand for extra premium will
be discontinued.

The society will grant loans upon the conditions annexed. It will
grant annuities, either immediate or deferred, and purchase reversionary
interests.

Assurances are effected for any sum not exceeding £5000. The age

of a person when admitted on the policy shall not be afterwards disputed. The directors will dispense, in special cases, with personal attendance at the society's office.

Persons assured in this office may reside in any part of Europe; and may proceed, in time of peace, in decked vessels and steam-boats, throughout the whole of Europe, without paying any additional premium, or without permission of the directors for that purpose. Assurances may be effected in cases of peculiar or extraordinary risks, by the payment of an adequate premium.

Although the death of a person who has effected an assurance on his own life should have occurred by duelling, by suicide, or by the hands of justice, the value of the policy on the day preceding his death will be paid to his legal representatives.

Assurances may be effected for the whole period of life, or for a stipulated number of years, by a single payment; or premiums may be paid by yearly, half-yearly, or quarterly instalments. By the payment of an extra premium during the early periods of life, the subsequent payments may be reduced. All premiums must be paid within thirty days after they become due.

The assured may participate in the profits of the society to the extent of two-thirds, either by periodical additions to their policies, or by diminishing their annual premiums. Those not wishing to participate in the profits may assure on a lower scale of premiums.

The society will advance money upon freehold and leasehold property, reversions, or other available security; or upon personal security, consisting of the bond of the borrower and two sureties, accompanied by an adequate amount of assurance. Such loans may be effected for three months, or any other specified period.

METROPOLITAN.

Mixed Assurance Company. Established A.D. 1835. 3, Princes-street, Bank.

Participating and non-participating rates.

After the first five years a reduction will be made from the surplus capital to assurers upon the participating scale upon the sixth and future annual payments.

MINERVA.

Mixed Assurance Company. Established A.D. 1836. King William-street.

A bonus of four-fifths of the profits declared every five years to be added to the policy, or applied in reduction of the premiums.

MUTUAL.

Established A.D. 1834. 37, Old Jewry.

The whole of the profits are divided without any reserve amongst the assured.

NATIONAL.

Mixed Company. Established a.d. 1830. 2, King William-street.

An estimate of the profits was made up to the 31st of December, 1834, the Society having been established five years, when one-fifth of the same was divided as follows : viz.,

Two-thirds amongst the assured for the whole term of life who had been so assured for the full period of five years, and one-third to the proprietors.

When the number of participators shall amount to 1000, no more shall be admitted, except as policies fall in, when the next in rotation shall succeed.

NATIONAL LOAN FUND.

Mixed Company. Established a. d. 1837. 26, Cornhill.

Assurances effected by a limited number of payments, on a gradually increasing or decreasing scale, or by rates varying every five or ten years, and terminable or not at the option of the assured.

The assured will have the option of converting his policy, at any time, into the following uses, viz.

Into an immediate payment of its present value.

Into a new policy, without any further premium, payable at his death, equal in present value to his original policy.

Into an annuity of equivalent value.

Into a security on which he may borrow equal to two-thirds of his payments.

In the event of negligence or inability to continue the annual premium, by which his policy would become forfeited, his representatives will, nevertheless, receive from the society at his death, in addition to any bonus assigned during the continuance of the payments, two-thirds of all payments made after the first five years.

The assured may at any time act upon the loan fund to the extent, as before, of two-thirds of his payments as a cash credit, upon giving notice to the office or agent at each branch of the society.

The sum borrowed may be for a permanent or temporary period; but irregularity in the payment of interest subjects the loan to be recalled.

Two-thirds of the profits estimated annually after the first three or five years, will be divided amongst those assured for life, on a participating scale of the society, and the profits of the guarantee fund, invested in reversionary and other interests, will be estimated in each division.

Each bonus, at the option of the assured, will be paid in money, or applied to the reduction of the future premiums, or an equivalent added to the policy.

Each *branch will be* entitled to a separate bonus, founded upon a calculation of its success.

When a claim on the society becomes vested in the widow or younger children of the assured, a special bonus will be added to the policy on its payment.

The society also grants deferred annuities, and states in the prospectus that the plan proposed will embody several essential objects.

To secure an increased provision for old age out of a given saving, by applying it exclusively to the purchase of a deferred annuity.

To render the purchase of a protection in sickness unnecessary, by enabling the purchaser of a deferred annuity to withdraw or borrow two-thirds of his previous payments.

By the use of two-thirds of all his payments when required, to limit misfortune and want of employment, and extend the power of productiveness by an increasing command, in each year, of capital, so that, while providing for old age, each successive contribution renders him more secure against present misfortune.

To afford, at the age at which the deferred annuity would commence, without reference to his then state of health, the option of receiving, instead of his annuity, its value in money, according to the value fixed on the contract, or a larger sum payable at his death.

In the event of death before the age at which he would be entitled to his deferred annuity, to return two-thirds of his payments to his family, or such fixed life assurance as may be settled on the contract.

In all such cases where the power of productiveness fails, either from disease or accident, to enable the assured on equal terms to convert his deferred annuity into a present annuity.

NATIONAL MERCANTILE.
Mixed Company.   Established a. d. 1837.   Arthur-street West,
London Bridge.

Participating and non-participating rates.

Half the amount of premium may be left as a charge upon the policy for five years, at 5 per cent interest.

NATIONAL PROVIDENT INSTITUTION.
Mutual Assurance Company.   Established a. d. 1835.   13, Nicholas-lane.

The whole of the profits of this institution are divided amongst the assured.

The whole premiums paid for several of its assurances under certain circumstances are returned.

NORWICH UNION.
Mutual Assurance Society.   Established a.d. 1808.
6, Crescent, Bridge-street, Blackfriars.

This Society is founded on the principle of mutual guarantee, and the whole of the surplus premium is added, at stated periods, to the policies of the members, in proportion to the sums they have respectively contributed.

The first addition was made on the 28th of June, 1816, when a bonus of 20 per cent was declared on the amount of premium deposited by the members insured previous to July, 1815.

The second addition assigned on the 28th of July, 1823, was 24 per cent on all premiums deposited prior to July, 1822, making, on the payments made previous to July, 1815, a total addition of 44 per cent.

The third addition was declared on the 29th of August, 1830, and was 25 per cent on all premiums deposited prior to July, 1829, making a total addition of 69 per cent on all insurances effected prior to 1815, and of 49 per cent prior to 1822.

In case of temporary embarrassment the Society will lend a sum proportioned to the value of the policy.

The subjoined list exhibits a few of the earlier policies, with the additions thereto.

No.	Sum Assured.	Annual Premium.			First Bonus.		Second Bonus.		Third Bonus.			Total Claim on the Society.		
	£.	£.	s.	d.	£.	s.	£.	s.	£.	s.	d.	£.	s.	d.
7	1000	37	15	0	52	16	126	14	198	3	0	1377	13	0
380	2000	51	1	8	71	8	171	12	268	3	0	2511	3	0
477	1000	62	0	0	74	8	193	8	310	0	0	1577	16	0
1259	1000	74	18	4	59	16	197	15	337	2	6	1594	13	6
1319	2000	88	13	4	70	16	234	0	399	0	0	2703	16	0
1651	2000	75	10	0	45	4	181	4	320	17	6	2547	5	6
1736	3000	117	0	0	70	4	280	16	497	5	0	3848	5	0
1745	2000	110	1	8	66	0	264	0	467	17	0	2797	17	0
1946	2500	81	9	2	32	8	175	18	325	16	0	3034	2	0
2012	3000	108	0	0	43	4	233	5	432	0	0	3708	9	0
2470	3000	132	10	0	26	8	254	8	496	17	6	3777	13	6
3589	4999	323	2	6			465	2	1050	3	0	6514	5	0

NORTH BRITISH.

Mixed Company. Established A.D. 1809. 4, New Bank-buildings.

Participators entitled to two-thirds of the profits, which may be either added to the amount assured, or applied to the diminution of premium.

Premiums may be paid quarterly, half-yearly, or yearly. Participating and non-participating rates.

In March, 1838, a bonus was declared of £1 5s. per cent per annum on the sum assured.

NORTH OF SCOTLAND.

Mixed Company. Established A.D. 1836. 1, Moorgate-street.

Participating and non-participating rates.

Three-tenths of the profits divided amongst the assured who are entitled to participate.

A table by which the assured may secure the amount to his representative *in the event of his dying before the age of 60, or to himself if he attain that age.*

One-half the premium for the first five years may remain in arrear, to be eventually deducted from the sum assured, if not previously paid off, together with interest on the sums due.

Loans at 5 per cent on real or personal security.

PALLADIUM.

Mixed Company. Established A.D. 1797. 7, Waterloo-place.

The assured participate in four-fifths of the profits, to be added every seventh year to policies effected for the whole term of life on lives not exceeding the age of 50 when assured, or the additions may be applied in reduction of the premium.

The following Table shows the additions made to policies for £5000, which had been in force for seven complete years, and also for fourteen years, to the 31st December, 1838, viz.

Age at Commencement.	First Bonus for Seven Years, from 1824 to 1831.			Second Bonus for Seven Years, from 1831 to 1838.			Total Additions for Fourteen Years, from 1824 to 1838.			Total Sums now payable, in case of Death.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
10	281	0	10	305	5	9	586	6	7	5586	6	7
15	338	19	2	342	3	5	681	2	7	5681	2	7
20	414	11	8	353	13	5	768	5	1	5768	5	1
25	424	15	10	362	6	10	787	2	8	5787	2	8
30	433	15	0	380	0	6	813	15	6	5813	15	6
35	447	10	0	406	16	5	854	6	5	5854	6	5
40	477	18	4	445	19	9	923	18	1	5923	18	1
45	512	10	0	498	12	9	1011	2	9	6011	2	9
50	571	5	0	558	10	7	1129	15	7	6129	15	7

The above additions, on an average of all ages from eight to fifty, amount to forty-three per cent, or nearly one-half, on the premiums paid during the fourteen years.

Proportionate sums were also appropriated to policies of smaller amount, and to such as had subsisted for less than seven years; conditionally that, when death occurs, seven annual payments shall have been previously made.

PELICAN.

Mixed Company. Established A.D. 1797. 70, Lombard-street.

Participating and non-participating rates.

The assured on the participating scale, after the 3rd of July, 1840, to form a separate class ; and at the end of every seven years from that date, after a valuation of the outstanding risk in this class, and after a reasonable deduction for charges and management, the then holders of policies, on this scale of premium, will be entitled to not less than a moiety of any surplus that may then appear, to be ascertained and apportioned by the directors; and, thereupon, the holders of policies

whole life which have been in force five years, or which shall be after-wards continued till they have been in force for that period, shall, at the option of the assured (to be declared at the time of effecting the insur-ance), be entitled to have the sum that at each septennial valuation may be appropriated to their respective policies applied according to either of the rules following, viz. :—

By an immediate payment of the sum so appropriated.

By an equivalent reduction in the future annual premiums.

By an equivalent addition to the amount of the policy, and payable therewith.

PROMOTER.

Mixed Company. Established a.d. 1826. 9, Chatham-place, Blackfriars.

Assurers for the whole term of life have the option either of securing a fixed sum at death, or of taking out their policies to participate in three-fourths of the nett profits of the office, on paying an increased rate of premium.

A division of the profits will take place quinquennially, in such man-ner as the board shall consider equitable. The directors having the power to reserve a portion of the nett profits, as a rest, whenever they may deem it expedient to do so.

Bonuses accrue on all beneficial policies on which three annual pre-miums shall have been paid at the time a division occurs ; and the holders of such policies have the option of having their bonuses appor-tioned in either of the following ways ; provided a written declaration of such option be lodged at the office within three calendar months imme-diately after the division takes place :—

By an immediate payment in money.

By the addition of an equivalent reversionary sum to the policy ; or by the issue of a distinct policy for the bonus.

By an equivalent reduction in the future annual premiums.

If no election be made within three months, the bonus will be applied in augmentation of the policy.

The lives of persons afflicted with diseases not immediately fatal ; of officers in the army and navy ; and of such as are going beyond the limits of the continent of Europe, are also assured at commensurate premiums.

PROTECTOR.

Mixed Company. Established a.d. 1833. 36, Old Jewry.

Participating, non-participating, increasing, and decreasing rates.

The affairs of the society are investigated every five years, and the profits, including the dividends on the invested capital, and after pay-ment of expenses, interest to the proprietors, &c., are then divided, three-fourths being appropriated to all existing assurances effected on the

participating scale, in the proportions indicated by the value of each policy respectively. The profits thus apportioned may be applied at the option of the parties, either in adding to the amount of their assurance such reversionary sum as may be equivalent to its share of profit, or in reduction of the premium thereafter payable on the policy.

The remaining one-fourth is divided amongst the proprietors in proportion to the number of shares held by each.

A table of premiums has been constructed at a somewhat lower rate than the participating one, to meet the views of persons desirous of securing only a certain fixed sum at their decease, or at the decease of any individual in whose life they are interested.

The society moreover affords the means of securing a provision during life or on attaining a given age : it also embraces both contingencies, and enables a person to provide a sum for himself on attaining a certain age, or for his family should he die previously.

PROTESTANT DISSENTERS'.

Mixed Company. Established a.d. 1839. 62, King William-street.

One-tenth of the entire profits is appropriated by the deed of settlement to reducing the premiums payable for assuring the lives of Dissenting and Methodist ministers, or in other ways similarly beneficial to their families.

A table of premiums for policies payable at the age of 60, suitable to the case of superannuated ministers, or of other professional men.

Two tables of premiums, the one giving an interest in the profits of the Company, the other not.

Every facility given on moderate terms to persons going beyond the prescribed limits of their policy.

Premiums may be paid either annually, half-yearly, or quarterly, in a limited number of payments, or in one sum.

Loans advanced on policies of the value of £50, or policies purchased on liberal terms.

PROVIDENT.

Mixed Company. Established a.d. 1806. Regent-street.

The constitution deed of the Provident has determinately fixed the rule to be observed in the periodical allotments of surplus. At the end of every seven years from the foundation, a minute investigation ascertains what may properly be termed profits; and such a proportion thereof as the whole amount paid by the assured bears to the original deposit of the subscribers (without bringing to account the subsequent accumulations) belongs to those insured for the whole of life, in due proportions—the remainder to the subscribers. .

These septennial dividends have gone on regularly increasing. The fourth, which was declared in August, 1834, gave 5.10 per cent upon the premiums paid.

PROVIDENT CLERKS' MUTUAL BENEFIT ASSOCIATION

Enrolled under the Friendly Societies Acts.   Established A.D. 1841.
10, King William-street.

The funds of the Benefit department are raised by quarterly, half-yearly, or yearly contributions, to secure to members the following benefits, to all or any of which they are at liberty to subscribe, viz. :—

A provision for the payment of a sum of money, of not less than £50, nor exceeding £500, at the decease of a member.

A provision for a deferred annuity of not less than £10, nor exceeding £50 per annum, to commence at not less than 55 years of age, and to continue for the remainder of life.

A provision for a similar annuity to the above, the whole of the premiums to be returned, without interest, in the event of the member's death before attaining the specified age.

A provision for an endowment for children, not exceeding £500, on attaining the respective ages of 14 or 21 years.

A provision for a similar endowment, the whole of the premiums to be returned, without interest, in the event of the decease of the party before attaining the age agreed on.

A provision for an immediate annuity not exceeding £50.

A provision for the payment of a sum of money, of not less than £50, nor exceeding £500, at the death of A, provided B be then living.

A provision for the payment of a sum of money, of not less than £50, nor exceeding £500, at the decease of the first of two parties.

The profits derived from this department, after defraying expenses of management, will be appropriated as follows, every five years, viz. :— One-third will be placed to the account of the Benevolent Fund, and two-thirds will be equitably divided, by addition to the policies, a reduction in future premiums, or a bonus, amongst such members as have been assured five years, retaining only such portion of the profits as may be deemed requisite to form a reserved fund.

Clerks of the ages of 15 years and upwards (upon the usual certificates) will be admitted members by availing themselves of any of the above benefits, and on paying an admission fee of half-a-guinea, to be appropriated towards the expenses of management: such members will be entitled to all the advantages derivable from the Benevolent Fund.

Persons (not being clerks) desirous of effecting assurances with this association may do so (upon the usual certificates), but such persons will not be required to pay any admission fee, nor will they be entitled to participate in any of the advantages derivable from the Benevolent Fund.

A book will be kept in which such members as are out of employment may enter, in their own writing, their name, age, and former employers, together with the nature of the employment they are seeking.   This book will be open *for the gratuitous* inspection of merchants, bankers, and *others, requiring clerks.*

The Benevolent Fund is designed for the purpose of relieving afflicted and distressed clerks (being members), their widows and families, who from unavoidable circumstances have been unable to make provision for themselves.

The funds of this department are raised by the following means, viz.: —By one-third of the profits arising from the Benefit department, every five years; by the donations, subscriptions, and bequests of merchants, bankers, and other charitably-disposed persons, and by the subscriptions of clerks.

In order to ensure the permanent stability of this fund, no relief will be granted from it until it shall amount to the sum of £5000, when the interest on that sum may be applied to the relief of distressed clerks, as hereafter specified; but no more until the said fund shall amount to the sum of £10,000.

After the last-mentioned sum has been raised, the general committee is empowered to apply the interest thereof, together with such portion of the annual subscriptions as may be deemed expedient, to the purposes hereafter mentioned, but on no account to reduce the permanent fund below the sum of £10,000.

Permanent relief to be granted, by way of pension, of £25 and upwards, according to the circumstances of the case, the funds at the disposal of the board, and the contributions of the applicants, to distressed clerks of good character, who are or have been members of either branch of this association, and who, from old age, sickness, blindness, or other infirmity, are rendered incapable of obtaining their living; such pensions to be payable by quarterly instalments.

Pensions of £15, £20, or £25, to be granted to the widows of deceased members, of good character, who are in distress; but such pension to cease should such widow marry again.

Clerks subscribing one guinea annually, or ten guineas in one payment, will be members of this branch of the association, and be entitled to one vote at elections, with the privilege of entering their names in the situation-book.

Subscribers of one guinea and upwards annually will be entitled to one vote for every guinea.

Subscribers of ten guineas at one payment will be life-governors, and entitled to one vote, and an additional vote for every such additional ten guineas.

The general committee is empowered to increase, decrease, or suspend any pension, under particular circumstances, as provided in the rules.

The general committee is empowered in their discretion to apportion such part of the Benevolent Fund (provided it is not reduced below the amounts above specified) as may be deemed expedient as a casualty fund, to afford temporary relief to distressed clerks who are or have been members, or to their widows and families. The temporary relief to be granted from the casualty fund to be as follows, viz.:—

By loans, without interest, on the security of two responsible persons, of sums not exceeding £10 at one time, to be repaid by quarterly instalments within two years.

By gratuities of sums not exceeding £10 at one time, in cases of long and expensive illness, or other serious calamity, together with medical assistance, if required.

By allowances of not more than 8*s.* per week, nor for any period exceeding six months.

By an allowance, not exceeding 8*s.* per week to one family, to orphan children of deceased members under fourteen years of age.

By assisting any member of the Benefit department (if a clerk at the time of entrance) with the means of continuing the payment of his premium, provided such member is, from distress, unable to keep it up, and has previously maintained his payments for at least five years.

RELIANCE.

Mutual Assurance Company. Established A.D. 1841.

Participating and non-participating rates.

The whole of the profits divided amongst the assured entitled to participation.

Ascending scale of premiums.

ROCK.

Mixed Company. Established A.D. 1807. 14, New Bridge-street, Blackfriars.

The profits are divided periodically, at intervals of not less than seven years ; two-thirds being appropriated to the policies of the assured for the term of life, and the remaining third added to the subscription Capital stock, on which a dividend is paid annually to the proprietors.

Table of the Addition made to each sum of £100 assured for the term of life, and to be paid when the policy shall become a claim.

Date of Policy.	Addition in 1819, 2 per Cent.	Addition in 1826, 1 per Cent.	Addition in 1833, 1l. 6s. per Ct.	Addition in 1840, 15s. per Cent.	Total Addition.
	£. s.	£. s.	£. s.	£. s.	£. s.
On or before 31st Dec. 1806	24 0	19 0	33 16	24 15	101 11
1807	22 0	18 0	32 10	24 0	96 10
1808	20 0	17 0	31 4	23 5	91 9
1809	18 0	16 0	29 18	22 10	86 8
1810	16 0	15 0	28 12	21 15	81 7
1811	14 0	14 0	27 6	21 0	76 6
1812	12 0	13 0	26 0	20 5	71 5
1813	10 0	12 0	24 14	19 10	66 4
1814	8 0	11 0	23 8	18 15	61 3
1815	6 0	10 0	22 2	18 0	56 2
1816	4 0	9 0	20 16	17 5	51 1
1817	2 0	8 0	19 10	16 10	46 0
1818	..	7 0	18 4	15 15	40 19
1819	..	6 0	16 18	15 0	37 18
1820	..	5 0	15 12	14 5	34 17
1821	..	4 0	14 6	13 10	31 16
1822	..	3 0	13 0	12 15	28 15
1823	..	2 0	11 14	12 0	25 14
1824	..	1 0	10 8	11 5	22 13
1825	..	..	9 2	10 10	19 12
1826	..	..	7 16	9 15	17 11
1827	..	..	6 10	9 0	15 10
1828	..	..	5 4	8 5	13 9
1829	..	..	3 18	7 10	11 8
1830	..	..	2 12	6 15	9 7
1831	..	..	1 6	6 0	7 6
1832	..	..	..	5 5	5 5
1833	..	..	..	4 10	4 10
1834	..	..	..	3 15	3 15
1835	..	..	..	3 0	3 0
1836	..	..	..	2 5	2 5
1837	..	..	..	1 10	1 10
1838	..	..	..	0 15	0 15

ROYAL EXCHANGE.

Mixed Company. Established a.d. 1722. (*Temporary Office*) Lombard-street.

The assured by policies effected with this corporation, on and after the 1st January, 1842, for the whole term of life, constitute distinct classes, and two-thirds of the net profits that may appear to the governors and directors (on an investigation to be made septennially) to have separately accrued, upon policies effected in Great Britain and Ireland, shall be respectively apportioned among such of the British and Irish assurances then subsisting as shall be then found to have had three annual premiums at least paid thereon; the bonus so apportioned to be applied, in each case, in either of the two following modes, according to the option declared at the time of effecting the assurance, viz. :—

By augmentation of the sum assured.

By reduction of the future premiums.

ROYAL NAVAL, MILITARY, AND EAST INDIA SOCIETY.

Mixed Company.   Established A.D. 1838.   13, Waterloo-place.

A bonus every five years of four-fifths of the profits added to the policy or applied in reduction of the premiums, or the present value given in ready money, or the premiums discontinued after a certain period.   Participating and non-participating scale.   Quarterly, half-yearly, or yearly premiums.   Assurances granted on lives, wherever resident.   Ascending scale.   Sums may be assured payable on the death of a person before the age of 65, or on the party attaining that age.

SCOTTISH AMICABLE.

The whole of the profits are divided amongst the assured.

A Table showing the Bonus added to the Policies, 31st Dec., 1832.

Year of Entry.	Original Sum.	Bonus.	Accumulated Sum.
	£	£	£
1826	1000	105	1105
1827	1000	90	1090
1828	1000	75	1075
1829	1000	60	1060
1830	1000	45	1045
1831	1000	30	1030
1832	1000	15	1015

SCOTTISH UNION.

Mixed Company.   Established A.D. 1824.   449, West Strand.

Participating and non-participating rates.

Two-thirds of the profits are allotted at regular periods to the assured, without being subject to any deduction for charges of management.   The remaining one-third will be reserved by the incorporation as a compensation for undertaking the whole expense of management, and for the security afforded by their capital against all possible contingencies.

SCOTTISH WIDOWS' FUND.

Mutual Assurance Company.   Established A.D. 1815.   7, Pall-Mall.

The entire profits divided among the assured every seven years.
Ascending scale of premiums.

Tabular view of the effect of the Additions† declared prospectively on Policies of the original amount of £1000, opened in the years undermentioned, if becoming claims in the first, second, third, fourth, fifth, sixth, or seventh year of the succeeding septennial period of the Society's progress.

Year of Entry.	Policy with vested Additions at Jan. 1, 1839.	Amount of Policy, including Prospective Additions, if Claim emerge in the Year.						
		1839.	1840.	1841.	1842.	1843.	1844.	1845.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1815	1587 4 6	1618 19 4	1650 14 2	1682 9 1	1714 4 0	1745 18 10	1777 13 9	1809 8 7
1816	1587 4 6	1618 19 4	1650 14 2	1682 9 1	1714 4 0	1745 18 10	1777 13 9	1809 8 7
1817	1587 4 6	1618 19 4	1650 14 2	1682 9 1	1714 4 0	1745 18 10	1777 13 9	1809 8 7
1818	1587 4 6	1618 19 4	1650 14 2	1682 9 1	1714 4 0	1745 18 10	1777 13 9	1809 8 7
1819	1587 4 6	1618 19 4	1650 14 2	1682 9 1	1714 4 0	1745 18 10	1777 13 9	1809 8 7
1820	1345 4 0	1372 2 1	1399 0 2	1425 18 3	1452 16 4	1479 14 5	1506 12 6	1533 10 7
1821	1328 2 0	1354 13 3	1381 4 6	1407 15 9	1434 7 0	1460 18 2	1487 9 5	1514 0 8
1822	1311 0 0	1337 4 5	1363 8 10	1389 13 2	1415 17 7	1442 2 0	1468 6 5	1494 10 10
1823	1293 18 0	1319 15 7	1345 13 1	1371 10 8	1397 8 3	1423 5 10	1449 3 4	1475 0 11
1824	1276 16 0	1302 6 9	1327 17 5	1353 8 2	1378 18 11	1404 9 7	1430 0 4	1455 11 0
1825	1259 14 0	1284 17 11	1310 1 9	1335 5 8	1360 9 6	1385 13 5	1410 17 3	1436 1 2
1826	1242 12 0	1267 9 0	1292 6 1	1317 3 1	1342 0 2	1366 17 2	1391 14 3	1416 11 3
1827	1225 10 0	1250 0 2	1274 10 5	1299 0 7	1323 10 10	1348 1 0	1372 11 2	1397 1 5
1828	1208 8 0	1232 11 4	1256 14 9	1280 18 1	1305 1 5	1329 4 10	1353 8 2	1377 11 6
1829	1191 6 0	1215 2 6	1238 19 0	1262 15 7	1286 12 1	1310 8 7	1334 5 1	1358 1 8
1830	1174 4 0	1197 13 8	1221 3 4	1244 13 0	1268 2 9	1291 12 5	1315 2 1	1338 11 9
1831	1157 2 0	1180 4 10	1203 7 8	1226 10 6	1249 13 4	1272 16 2	1295 19 0	1319 1 11
1832	1140 0 0	1162 16 0	1185 12 0	1208 8 0	1231 4 0	1254 0 0	1276 16 0	1299 12 0
1833	1120 0 0	1142 8 0	1164 16 0	1187 4 0	1209 12 0	1232 0 0	1254 8 0	1276 16 0
1834	1100 0 0	1122 0 0	1144 0 0	1166 0 0	1188 0 0	1210 0 0	1232 0 0	1254 0 0
*1835	1060 0 0	..	1123 4 0	1144 16 0	1166 8 0	1188 0 0	1209 12 0	1231 4 0
*1836	1060 0 0	..	..	1123 12 0	1144 16 0	1166 0 0	1187 4 0	1208 8 0
*1837	1040 0 0	..	..	..	1123 4 0	1144 0 0	1164 16 0	1185 12 0
*1838	1020 0 0	..	..	..	..	1122 0 0	1142 8 0	1162 16 0
*1839	1000 0 0	..	..	..	..	..	1120 0 0	1140 0 0
*1840	1000 0 0	..	..	..	..	..	..	1120 0 0

Note.—This Table proceeds on the supposition that the claim emerges after the annual contribution or premium has been paid for the year in which it so emerges. If the claim emerge before such payment, the sums payable will be those set down in the table as applicable to the immediately preceding year.

SUN.

Mixed Assurance Company. Established A.D. 1810. Cornhill.

On all policies for £100 and upwards for the whole period of life the net profits of the society accruing from and after Midsummer, 1837, shall be divided equally between the proprietors and the assured, namely, one moiety to each : such division to be made at such periods, and in such manner, as may appear most expedient to the managers; they re-

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* The order for additions made to the policies opened in the years marked * in the above table will become *ipso facto* vacated if the parties assured die within five years from their respective dates.

† The amount of these additions, in present value, is fully provided for out of the actual divisible surplus now ascertained, and therefore depends in no degree on any assumption of profits or surplus funds during the succeeding septennial period.

erving to themselves the power of setting apart, in case of necessity, a ortion of the profits as a reserved fund.

At every septennial valuation, the next of which will be at Midsummer, 1843, the profits apportioned to each policy then in force, and on which not less than five annual premiums may have been paid, will be ppropriated at the option of the holder in any of the four following rays :—

By a payment in then present money.

By an equivalent augmentation of the sum assured, payable at the xtinction of the life.

By an equivalent reduction of the subsequent annual premium.

By granting a separate policy, insuring the payment at the failure of he life of a sum which, at the time the profits were appropriated, was ust worth those profits in then present money.

Provided that a written declaration of such option be left at the office f the society within three months next after the division shall have een declared; and if such option be not so declared, the sum previously ssured by the policy will receive an augmentation equivalent to the rofits such policy may be entitled to in then present money.

UNITED KINGDOM.

Mixed Company.   Established A.D. 1834.   8, Waterloo-place.

Two-thirds of the profits added periodically to the sum assured, or pplied in reduction of the annual premium.

Premiums may be paid quarterly, half-yearly, or annually.

When an insurance is for life, half the premium may remain unpaid or five years at interest, to be deducted eventually from the policy, or e paid off at convenience.   Ascending and descending scales of premiums are adopted.

Persons afflicted with complaints not attended with immediate danger o life may be insured at premiums proportioned to their peculiar situation.

UNION.

Mixed Company.   Established A.D. 1714.

The deed of settlement declares that profits shall be declared every even years on insurances for the whole term of life.

Participating and non-participating scales of premiums.

The addition of profits payable with the sum insured on all policies ffected for the whole term of life on and prior to December 31, 1833, nd duly in force, amounts with a previous bonus, on a scale from :16 9 per cent on the sum insured by policies of the longest duration, nd varying accordingly with the dates of the respective insurances.

UNIVERSAL.

Mixed Company.   Established a.d. 1834.   1, King William-street.

The concerns of this Society to be regularly investigated by auditors, to be chosen as well by the assured as by the proprietors, and its assets and liabilities valued.

The shareholders receive interest at the rate of 5 per cent per annum, and at the end of five years from the establishment of the office, the profits, after payment of such interest, to be distributed ; one-fourth to the shareholders, and the remaining three-fourths to the holders of policies for the whole term of life who shall have been assured for the full period of five years ; after which the distribution will be continued annually on a similar plan.

Money advanced on policies by way of loan to the amount of two-thirds of the estimated value.

The first division of profits took place on the 13th of May, 1840, when a reduction of 60 per cent was declared on the annual premiums of all those policies entitled to participation, and similar reductions were declared in 1841 and 1842.

The following table will show the operation of the reduction made by the Society :—

Age when Policy was issued.	Date of Policy.	Sum Assured.	Original Premium.			Reduction.			Annual Premium payable in 1840.		
		£.	£.	s.	d.	£.	s.	d.	£.	s.	d.
20	May, 1834.	1000	19	6	8	11	12	0	7	14	8
30	,,	1000	24	8	4	14	13	0	9	15	4
40	,,	1000	31	10	0	18	18	0	12	12	0
50	,,	1000	42	15	0	25	13	0	17	2	0
60	,,	1000	66	11	8	39	19	0	26	12	8

UNIVERSITY.

Mixed Company.   Established a.d. 1825.   24, Suffolk-street.

Assurances may be effected on the lives of all persons whose names are, or have been, during any period, however short, on the books or boards of any college or hall at Oxford or Cambridge.

Assurances may be effected on the lives of such persons against the lives of any person whatsoever.

A division of profits is made every five years, and very nearly nine-tenths appropriated to the assured, either by a proportionate diminution of premium, by an increase in the amount of the policy, or by a present payment of the value in money, at the option of the party.

The society will be always ready to purchase from the party in possession any unexpired policy, or the additions thereon ; or to lend the present value of both at interest, on the deposit of the policy with the society.

Personal appearance at the office is not required, except in particular cases.

Persons assured in this office for the whole period of life may go by sea, during peace, without obtaining a licence or paying an extra premium, from any part of Europe to any other part of Europe.

VICTORIA.

Mixed Assurance Company. Established A.D. 1838. 8, King William-street.

The directors advance money in amount varying from £50 to £500, either by way of loan or on annuity, subject to the borrower's effecting policies with the Company to double the amount of such loan, and guaranteeing the payment of the premiums, and also of the principal and interest, by approved security. One-half the profits to be divided septennially amongst the assured.

WEST OF ENGLAND.

Mixed Assurance Company. Established A.D. 1807. 20, Bridge-street, Blackfriars.

Insurers at the end of every five years from Christmas, 1827, to participate in the profits, which are added to the policy, or applied to the reduction of the annual premiums.

WESTMINSTER SOCIETY.

Mixed Assurance Company. Established A.D. 1792. 429, Strand.

An addition of £5 per cent is made at the end of five years, and £1 per cent every year after.

WESTMINSTER AND GENERAL.

Mixed Company. Established A.D. 1839. 27, King-street, Covent Garden.

A guarantee fund subscribed, to be paid off when a capital equal in amount is accumulated.

Until the subscribers are so paid off, four-fifths of the total profits will, at intervals of five years, be appropriated amongst those assured for the whole term of life, on whose policies two or more years' premiums shall have been paid, and the remaining one-fifth at similar intervals be appropriated as follows : viz., one moiety among the subscribers, and the other moiety to be added to the guarantee fund.

YORK AND NORTH OF ENGLAND.

Proprietary Company. Established A.D. 1834. King William-street.

Policies purchased, or money advanced thereon, or the same converted into annuities.

Policies for £1000 and upwards granted at increasing or decreasing rates, or credit given for a portion of the premiums.

Lives subject to any disease not attended with immediate danger assured on equitable terms.

TABLE I. 1133

nnual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	Achilles.			Albion.			Alfred.			Alliance.			Amicable.			Argus.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	17	9	0	14	9	0	13	11	0	15	1	0	19	10	0	15	2
17	0	18	3	0	15	3	0	14	5	0	15	7	1	0	4	0	15	9
18	0	18	9	0	15	9	0	14	11	0	16	5	1	0	10	0	16	3
19	0	19	3	0	16	3	0	15	6	0	17	4	1	1	4	0	16	10
20	0	19	9	0	17	0	0	16	1	0	19	1	1	1	10	0	17	4
21	1	0	9	0	17	9	0	16	9	1	0	0	1	2	5	0	17	10
22	1	1	6	0	18	6	0	17	6	1	1	0	1	3	0	0	18	4
23	1	2	3	0	19	3	0	18	4	1	2	0	1	3	7	0	18	9
24	1	3	0	1	0	0	0	19	3	1	2	8	1	4	2	0	19	2
25	1	3	9	1	0	6	1	0	1	1	3	3	1	4	9	0	19	7
26	1	4	6	1	1	3	1	0	11	1	3	11	1	5	0	1	0	0
27	1	5	3	1	1	9	1	1	8	1	4	7	1	5	4	1	0	4
28	1	6	0	1	2	6	1	2	7	1	5	4	1	5	8	1	0	8
29	1	6	9	1	3	0	1	3	5	1	6	0	1	5	10	1	1	0
30	1	7	6	1	3	9	1	4	1	1	6	9	1	6	2	1	1	3
31	1	8	3	1	4	3	1	4	11	1	7	0	1	6	5	1	1	7
32	1	9	0	1	4	9	1	5	6	1	7	4	1	6	9	1	1	10
33	1	9	9	1	5	3	1	6	4	1	7	8	1	7	2	1	2	2
34	1	10	6	1	5	9	1	7	2	1	8	0	1	7	6	1	2	5
35	1	11	3	1	6	6	1	7	11	1	8	4	1	8	0	1	2	9
36	1	12	0	1	7	6	1	8	8	1	8	8	1	8	5	1	3	0
37	1	12	9	1	8	3	1	9	6	1	9	0	1	8	10	1	3	4
38	1	13	6	1	9	0	1	10	4	1	9	5	1	9	6	1	3	8
39	1	14	3	1	10	0	1	11	4	1	11	3	1	10	4	1	4	1
40	1	15	0	1	11	0	1	12	4	1	13	7	1	11	6	1	4	6
41	1	15	9	1	12	3	1	13	5	1	15	8	1	12	10	1	5	0
42	1	16	6	1	13	6	1	14	6	1	17	3	1	14	5	1	5	6
43	1	17	6	1	14	3	1	15	9	1	17	10	1	16	8	1	6	2
44	1	18	6	1	15	6	1	17	2	1	19	0	1	17	8	1	6	10
45	1	19	6	1	16	9	1	18	8	2	1	10	1	19	4	1	7	8
46	2	1	3	1	17	9	2	0	3	2	3	8	2	0	6	1	8	7
47	2	2	9	1	19	0	2	1	10	2	4	6	2	2	2	1	9	7
48	2	4	6	2	0	0	2	3	7	2	5	4	2	4	6	1	10	9
49	2	6	3	2	1	6	2	5	5	2	8	0	2	7	0	1	12	0
50	2	7	9	2	3	6	2	7	3	2	10	9	2	9	6	1	13	5
51	2	9	9	2	5	6	2	9	2	2	13	8	2	12	4	1	15	2
52	2	11	9	2	7	9	2	11	3	2	15	7	2	14	7	1	17	0
53	2	13	9	2	10	3	2	13	7	2	18	2	2	17	0	1	19	0
54	2	15	9	2	13	0	2	15	11	3	0	4	2	19	7	2	1	3
55	2	17	9	2	16	0	2	18	5	3	2	7	3	2	4	2	3	10
56	3	1	3	2	19	3	3	1	2	3	6	4	3	6	0	2	6	8
57	3	5	3	3	3	3	3	4	2	3	9	8	3	9	10	2	9	9
58	3	9	9	3	7	6	3	7	0	3	12	7	3	13	6	2	13	2
59	3	14	10	3	12	0	3	10	0	3	15	8	3	16	0	2	16	11
60	4	2	8	3	17	0	3	13	0	4	3	7	3	18	9	3	1	1

TABLE I.

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	Asylum.			Atlas.			Australian.			Britannia.			British Commercial.			British Empire.			Caledonian.			Church of England		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	13	11	0	17	4	0	14	0	0	18	6	0	16	8	0	15	6	0	15	1	0	19	3
17	0	14	4	0	19	1	0	14	6	0	19	1	0	17	6	0	16	0	0	15	7	0	19	9
18	0	14	10	1	0	10	0	15	1	0	19	6	0	18	4	0	17	0	0	15	8	1	0	3
19	0	15	3	1	2	8	0	15	8	0	19	11	0	19	2	0	18	0	0	15	9	1	0	8
20	0	15	8	1	4	7	0	16	3	1	0	3	0	19	4	0	18	2	0	15	11	1	1	0
21	0	16	2	1	5	9	0	16	5	1	0	7	0	19	6	0	18	4	0	16	1	1	1	4
22	0	16	8	1	6	6	0	16	11	1	0	10	1	0	4	0	18	5	0	16	2	1	1	7
23	0	17	2	1	6	11	0	17	2	1	1	1	1	0	6	0	19	6	0	16	3	1	1	10
24	0	17	8	1	7	3	0	17	3	1	1	4	1	1	5	0	19	8	0	16	4	1	2	1
25	0	18	2	1	7	8	0	17	5	1	1	6	1	1	7	0	19	10	0	16	6	1	2	3
26	0	18	8	1	8	1	0	18	0	1	1	7	1	2	6	1	0	0	0	16	7	1	2	5
27	0	19	3	1	8	6	0	18	8	1	1	9	1	3	6	1	1	1	0	17	6	1	2	7
28	0	19	10	1	8	11	0	19	5	1	1	11	1	4	6	1	2	3	0	19	7	1	2	9
29	1	0	5	1	9	4	1	0	7	1	2	0	1	5	6	1	3	5	1	2	2	1	2	11
30	1	1	0	1	10	3	1	1	9	1	2	1	1	5	9	1	3	8	1	2	10	1	3	1
31	1	1	8	1	10	9	1	2	5	1	2	3	1	6	9	1	4	11	1	3	4	1	3	3
32	1	2	4	1	11	3	1	3	2	1	2	5	1	7	10	1	6	2	1	3	11	1	3	5
33	1	3	0	1	11	9	1	3	6	1	2	7	1	8	1	1	6	5	1	4	6	1	3	7
34	1	3	8	1	12	9	1	4	3	1	2	9	1	8	5	1	6	8	1	5	1	1	3	10
35	1	4	4	1	13	4	1	4	6	1	2	11	1	9	7	1	8	0	1	5	8	1	4	1
36	1	5	1	1	13	11	1	5	3	1	3	2	1	9	11	1	8	4	1	6	2	1	4	4
37	1	5	10	1	15	0	1	5	8	1	3	6	1	11	1	1	9	9	1	6	10	1	4	8
38	1	6	7	1	15	8	1	6	5	1	3	10	1	11	6	1	10	1	1	7	4	1	5	1
39	1	7	4	1	16	4	1	6	10	1	4	3	1	11	11	1	10	6	1	7	10	1	5	7
40	1	8	2	1	17	7	1	7	8	1	4	9	1	12	4	1	10	10	1	9	3	1	6	1
41	1	9	0	1	18	4	1	8	1	1	5	4	1	12	9	1	11	3	1	11	1	1	6	8
42	1	9	11	1	19	8	1	8	11	1	6	0	1	13	2	1	11	8	1	12	5	1	7	4
43	1	10	9	2	0	6	1	9	5	1	6	9	1	14	7	1	13	2	1	12	11	1	8	2
44	1	11	5	2	1	5	1	10	5	1	7	7	1	16	0	1	14	10	1	13	4	1	9	0
45	1	12	8	2	2	3	1	11	5	1	8	6	1	16	6	1	15	4	1	13	9	1	10	0
46	1	13	7	2	3	3	1	12	5	1	9	7	1	17	1	1	15	10	1	14	1	1	11	1
47	1	14	7	2	4	3	1	13	6	1	10	10	1	18	8	1	17	7	1	14	7	1	12	4
48	1	15	8	2	5	11	1	15	5	1	12	2	2	0	3	1	19	5	1	15	0	1	13	9
49	1	16	8	2	7	0	1	17	1	1	13	8	2	1	11	2	1	3	1	15	6	1	15	3
50	1	17	9	2	9	7	1	19	2	1	15	4	2	4	8	2	4	6	1	16	1	1	16	11
51	1	18	11	2	12	4	2	1	11	1	17	2	2	7	7	2	7	11	1	16	9	1	18	10
52	2	0	0	2	14	6	2	4	9	1	19	3	2	10	7	2	11	6	1	17	7	2	0	11
53	2	1	3	2	16	1	2	7	9	2	1	6	2	13	10	2	15	4	1	18	6	2	3	3
54	2	2	5	2	17	9	2	10	11	2	3	11	2	15	0	2	16	7	1	19	4	2	5	8
55	2	4	9	3	0	4	2	14	3	2	6	8	2	17	5	2	19	4	2	0	6	2	8	5
56	2	8	3	3	2	3	2	17	2	2	9	7	3	0	0	3	2	3	2	3	0	2	11	4
57	2	12	1	3	4	4	2	19	6	2	12	10	3	2	8	3	5	4	2	7	3	2	14	8
58	2	16	2	3	7	5	3	1	11	2	16	4	3	5	7	3	8	8	2	14	9	2	18	2
59	3	0	7	3	11	8	3	4	6	3	0	2	3	8	8	3	12	2	3	4	0	3	2	1
60	3	5	4	3	16	3	3	7	4	3	4	5	3	10	8	3	14	5	3	15	10	3	6	4

TABLE I. 1135

nnual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	City of Glasgow.			Clerical and Medical.			Crown.			Eagle.			Economic.			Edin- burgh.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	13	11	1	0	1	..			0	16	7	0	16	10	0	14	3
17	0	14	9	1	0	2	..			0	17	9	0	17	6	0	15	1
18	0	15	7	1	0	3	..			0	19	2	0	18	1	0	15	11
19	0	16	4	1	0	4	..			1	0	6	0	18	9	0	16	6
20	0	17	4	1	0	6	1	3	5	1	2	1	0	19	5	0	17	3
21	0	18	9	1	0	8	1	3	9	1	3	7	1	0	2	0	17	7
22	1	0	0	1	0	9	1	4	6	1	5	1	1	1	0	0	17	11
23	1	0	10	1	0	10	1	4	10	1	6	7	1	1	10	0	18	2
24	1	1	6	1	0	11	1	5	8	1	7	10	1	2	8	0	18	6
25	1	2	3	1	1	0	1	6	0	1	8	10	1	3	5	0	18	9
26	1	2	11	1	1	2	1	6	10	1	9	6	1	4	2	0	19	2
27	1	3	5	1	1	3	1	7	9	1	10	0	1	4	11	0	19	8
28	1	4	1	1	1	4	1	8	9	1	10	3	1	5	8	1	0	2
29	1	4	10	1	1	9	1	9	10	1	10	6	1	6	4	1	0	9
30	1	5	10	1	2	1	1	10	4	1	10	9	1	7	0	1	1	3
31	1	6	6	1	3	0	1	11	3	1	11	2	1	7	8	1	1	8
32	1	6	10	1	3	8	1	12	3	1	11	7	1	8	3	1	2	1
33	1	7	7	1	4	3	1	12	9	1	12	0	1	8	11	1	2	6
34	1	8	3	1	5	0	1	13	2	1	12	4	1	9	7	1	2	11
35	1	9	2	1	5	2	1	14	2	1	12	9	1	10	3	1	3	5
36	1	9	9	1	5	10	1	14	9	1	13	2	1	10	11	1	4	0
37	1	10	7	1	6	5	1	15	9	1	13	8	1	11	7	1	4	8
38	1	11	3	1	7	8	1	16	3	1	14	3	1	12	4	1	5	4
39	1	11	11	1	8	5	1	16	9	1	14	10	1	13	1	1	6	0
40	1	13	7	1	8	9	1	17	3	1	15	4	1	13	11	1	6	10
41	1	14	11	1	9	5	1	17	9	1	15	10	1	14	9	1	7	7
42	1	16	4	1	9	9	1	18	5	1	16	5	1	15	9	1	8	4
43	1	17	5	1	10	0	1	19	8	1	17	0	1	16	9	1	9	1
44	1	18	6	1	10	10	2	1	1	1	17	7	1	17	10	1	9	10
45	1	19	9	1	12	2	2	1	9	1	18	2	1	19	0	1	10	6
46	2	0	10	1	12	6	2	2	5	1	18	9	1	19	10	1	11	2
47	2	2	0	1	13	5	2	4	0	1	19	6	2	0	9	1	11	11
48	2	3	2	1	14	4	2	5	9	2	0	5	2	1	11	1	12	6
49	2	5	4	1	15	4	2	7	6	2	1	5	2	3	1	1	13	8
50	2	6	3	1	16	11	2	10	7	2	3	5	2	4	4	1	15	1
51	2	10	6	1	19	2	2	13	4	2	5	11	2	5	11	1	16	10
52	2	12	2	2	1	7	2	16	6	2	8	11	2	7	9	1	18	8
53	2	13	11	2	4	8	2	19	9	2	11	11	2	9	7	2	0	6
54	2	16	0	2	6	8	3	1	1	2	15	6	2	11	9	2	2	7
55	2	18	6	2	8	8	3	3	7	2	19	0	2	14	1	2	4	9
56	3	0	8	2	12	4	3	6	3	3	2	8	2	16	6	2	7	3
57	3	2	9	2	15	0	3	9	1	3	6	2	2	19	2	2	10	3
58	3	5	8	3	0	9	3	12	1	3	9	10	3	1	11	2	13	10
59	3	12	8	3	5	10	3	14	11	3	13	5	3	4	10	2	17	9
60	3	16	11	3	10	6	3	17	0	3	17	1	3	7	11	3	1	6

TABLE I.

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	English and Scottish Law.			Equitable.			European.			Family Endowment.			Farmers.			Freemasons.			Globe.		
	£	s.	d.	£.	s.	d	£.	s.	d.	£.	s.	d.	£.	s.	d	£.	s.	d.	£.	s.	d.
16	0	17	9	0	19	2	0	16	7	0	15	1	0	17	10	0	15	10	0	15	4
17	0	18	3	1	1	2	0	17	2	0	15	8	0	18	5	0	16	0	0	15	10
18	0	18	9	1	3	3	0	17	7	0	16	0	0	19	0	0	16	10	0	16	6
19	0	19	3	1	5	0	0	18	6	0	16	4	0	19	8	0	17	8	0	17	2
20	0	19	9	1	7	3	0	19	11	0	16	8	1	0	4	0	18	6	0	17	11
21	1	0	9	1	8	10	1	0	10	0	17	0	1	1	0	0	19	5	0	19	0
22	1	1	6	1	9	3	1	2	1	0	17	6	1	1	8	1	0	4	0	19	7
23	1	2	3	1	9	8	1	2	7	0	17	11	1	2	4	1	1	3	1	0	9
24	1	3	0	1	10	2	1	3	4	0	18	5	1	2	11	1	2	0	1	1	5
25	1	3	9	1	10	7	1	3	10	0	18	11	1	3	7	1	2	11	1	2	2
26	1	4	6	1	11	1	1	4	8	0	19	6	1	4	3	1	3	1	1	2	10
27	1	5	3	1	11	7	1	5	10	1	0	0	1	4	10	1	3	3	1	3	6
28	1	6	0	1	12	2	1	6	2	1	0	6	1	5	6	1	3	6	1	4	4
29	1	6	9	1	12	8	1	6	6	1	1	0	1	6	4	1	3	9	1	5	1
30	1	7	6	1	13	3	1	6	10	1	1	4	1	7	0	1	4	0	1	5	9
31	1	8	3	1	13	10	1	7	3	1	1	8	1	7	10	1	4	6	1	6	5
32	1	9	0	1	14	5	1	7	11	1	2	3	1	8	6	1	5	2	1	7	0
33	1	9	9	1	15	0	1	8	7	1	2	8	1	9	4	1	5	9	1	7	4
34	1	10	6	1	15	8	1	9	4	1	3	0	1	10	0	1	6	4	1	8	1
35	1	11	3	1	16	4	1	10	1	1	3	4	1	10	10	1	7	0	1	8	8
36	1	12	0	1	17	0	1	10	10	1	3	10	1	11	6	1	8	0	1	9	7
37	1	12	9	1	17	9	1	12	3	1	4	4	1	12	4	1	9	0	1	10	6
38	1	13	6	1	18	6	1	12	10	1	5	0	1	13	2	1	10	0	1	11	7
39	1	14	3	1	19	3	1	13	4	1	6	0	1	14	0	1	10	10	1	12	3
40	1	15	0	2	0	7	1	13	11	1	6	9	1	14	11	1	12	0	1	12	8
41	1	15	9	2	2	0	1	14	7	1	7	9	1	15	10	1	13	0	1	14	1
42	1	16	6	2	3	6	1	15	10	1	8	10	1	16	10	1	13	10	1	15	3
43	1	17	6	2	4	6	1	16	6	1	10	0	1	17	9	1	14	9	1	16	10
44	1	18	6	2	5	7	1	17	11	1	11	6	1	18	10	1	16	0	1	17	11
45	1	19	6	2	6	8	1	18	8	1	13	4	1	19	11	1	17	0	1	19	6
46	2	1	3	2	7	10	2	0	6	1	14	6	2	1	1	1	18	4	2	1	2
47	2	2	9	2	9	0	2	2	6	1	15	6	2	2	4	1	19	8	2	2	11
48	2	4	6	2	10	3	2	3	10	1	16	6	2	3	8	2	1	0	2	4	11
49	2	6	3	2	12	3	2	5	7	1	17	4	2	5	0	2	2	4	2	7	0
50	2	7	9	2	15	1	2	6	9	1	19	1	2	6	7	2	3	9	2	9	2
51	2	9	9	2	17	5	2	8	8	2	0	2	2	8	4	2	6	4	2	10	11
52	2	11	9	2	19	1	2	9	10	2	1	4	2	10	1	2	9	0	2	13	4
53	2	13	9	3	1	0	2	11	3	2	2	8	2	12	3	2	11	6	2	15	3
54	2	15	9	3	3	0	2	13	3	2	3	10	2	14	9	2	14	0	2	18	6
55	2	17	9	3	5	1	2	14	7	2	5	0	2	17	4	2	16	7	3	1	4
56	3	1	3	3	7	4	2	17	1	2	6	6	3	0	2	3	0	0		..	
57	3	5	3	3	9	9	3	1	8	2	8	0	3	3	2	3	3	6		..	
58	3	9	9	3	12	4	3	5	2	2	10	0	3	6	6	3	7	0		..	
59	3	14	10	3	15	1	3	8	5	2	13	0	3	9	10	3	10	4		..	
60	4	2	8	3	18	2	3	12	6	2	17	0	3	13	6	3	13	6		..	

TABLE I. 1137

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

ges.	Guardian.			Hand-in-Hand.			Hope.			Imperial.			Law.			Legal.			Licensed Victuallers.		
	£.	s.	d.	£.	s.	d.	£.	s.	d	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	17	4	0	13	9	0	19	2	0	16	8	0	19	2	0	19	9	0	17	2
17	0	19	1	0	14	6	1	1	2	0	17	6	1	1	2	1	0	3	0	18	6
18	1	0	10	0	15	6	1	3	3	0	18	4	1	3	3	1	0	8	1	0	0
19	1	2	8	0	16	3	1	5	0	0	19	2	1	5	0	1	1	2	1	1	4
20	1	4	7	0	16	9	1	7	3	0	19	4	1	7	3	1	1	7	1	3	0
21	1	5	9	0	17	0	1	8	10	0	19	6	1	8	10	1	2	1	1	3	9
22	1	6	6	0	17	9	1	9	3	1	0	4	1	9	3	1	2	7	1	4	6
23	1	6	11	0	18	3	1	9	8	1	0	6	1	9	8	1	3	2	1	5	4
24	1	7	3	0	19	0	1	10	2	1	1	5	1	10	2	1	3	8	1	6	3
25	1	7	8	0	19	6	1	10	7	1	1	7	1	10	7	1	4	3	1	7	0
26	1	8	1	1	0	6	1	11	1	1	2	6	1	11	1	1	4	10	1	7	8
27	1	8	6	1	1	6	1	11	7	1	3	6	1	11	7	1	5	5	1	8	3
28	1	8	11	1	2	6	1	12	1	1	4	6	1	12	1	1	6	0	1	8	8
29	1	9	4	1	3	6	1	12	8	1	5	6	1	12	8	1	6	8	1	9	0
30	1	10	3	1	4	0	1	13	3	1	5	9	1	13	3	1	7	4	1	9	10
31	1	10	9	1	5	3	1	13	9	1	6	9	1	13	9	1	7	11	1	10	6
32	1	11	3	1	6	3	1	14	4	1	7	10	1	14	4	1	8	7	1	11	0
33	1	11	9	1	6	9	1	15	0	1	8	1	1	15	0	1	9	4	1	11	6
34	1	12	9	1	7	3	1	15	8	1	8	5	1	15	8	1	10	0	1	12	5
35	1	13	4	1	8	3	1	16	4	1	9	7	1	16	4	1	10	9	1	13	0
36	1	13	11	1	9	0	1	17	0	1	9	11	1	17	0	1	11	7	1	13	8
37	1	15	0	1	10	3	1	17	9	1	11	1	1	17	9	1	12	4	1	14	7
38	1	15	8	1	10	9	1	18	6	1	11	6	1	18	6	1	13	2	1	15	5
39	1	16	4	1	11	6	1	19	3	1	11	11	1	19	3	1	14	0	1	16	0
40	1	17	7	1	12	0	2	0	8	1	12	4	2	0	8	1	14	10	1	17	1
41	1	18	4	1	12	6	2	2	0	1	12	9	2	2	0	1	15	9	1	18	0
42	1	19	8	1	13	3	2	3	6	1	13	2	2	3	6	1	16	8	1	19	3
43	2	0	6	1	14	6	2	4	6	1	14	7	2	4	6	1	17	7	2	0	0
44	2	1	5	1	16	3	2	5	6	1	16	0	2	5	6	1	18	6	2	1	1
45	2	2	3	1	17	0	2	6	8	1	16	6	2	6	8	1	19	7	2	1	11
46	2	3	3	1	17	9	2	7	10	1	17	1	2	7	10	2	0	7	2	2	10
47	2	4	3	1	19	6	2	9	0	1	18	8	2	9	0	2	1	8	2	3	11
48	2	5	11	2	1	6	2	10	3	2	0	3	2	10	3	2	2	8	2	5	6
49	2	7	0	2	3	6	2	12	3	2	1	11	2	12	3	2	3	9	2	6	7
50	2	9	7	2	6	6	2	15	1	2	4	8	2	15	1	2	4	11	2	9	2
51	2	12	4	2	10	0	2	17	4	2	7	7	2	17	4	2	6	2	2	12	0
52	2	14	6	2	13	3	2	19	1	2	10	7	2	19	1	2	7	5	2	14	1
53	2	16	1	2	17	3	3	1	0	2	13	10	3	1	0	2	8	8	2	15	8
54	2	17	9	2	18	6	3	3	0	2	15	0	3	3	0	2	9	11	2	17	2
55	3	0	4	3	1	3	3	5	0	2	17	5	3	5	0	2	12	4	3	0	0
56	3	2	3	3	4	6	3	7	3	3	0	0	3	7	3	2	16	1	3	2	0
57	3	4	4	3	7	6	3	9	8	3	2	8	3	9	8	3	0	1	3	4	1
58	3	7	5	3	10	9	3	12	3	3	5	7	3	12	3	3	4	5	3	7	2
59	3	11	8	3	14	9	3	15	1	3	8	8	3	15	1	3	9	1	3	11	6
60	3	16	3	3	16	9	3	18	1	3	10	8	3	18	1	3	14	1	3	16	2

TABLE I.

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	London Life Association.			London Corporation.			London, Edinbro', and Dublin.			London and Westminster.			Medical Invalid.			Metropolitan.			Minerva.			Mutual.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	16	3	0	15	5	0	16	11	0	15	3		..		0	15	6	0	17	4	0	19	2
17	0	17	3	0	17	10	0	17	6	0	15	9		..		0	16	0	0	19	1	1	1	2
18	0	18	3	1	0	9	0	17	11	0	16	2		..		0	16	6	1	0	10	1	3	3
19	0	19	3	1	3	7	0	18	2	0	16	8		..		0	17	0	1	2	8	1	5	0
20	1	0	3	1	6	2	0	19	2	0	17	2		..		0	17	6	1	4	7	1	7	3
21	1	1	3	1	10	2	0	19	4	0	17	9	0	19	3	0	18	0	1	5	9	1	8	10
22	1	2	0	1	11	1	0	19	9	0	18	3	0	19	7	0	18	6	1	6	6	1	9	3
23	1	2	6	1	11	7	1	0	1	0	18	9	1	0	0	0	19	0	1	6	11	1	9	8
24	1	2	9	1	11	9	1	0	9	0	19	3	1	0	8	0	19	6	1	7	3	1	10	2
25	1	3	0	1	11	4	1	0	11	1	0	0	1	1	0	1	0	2	1	7	8	1	10	7
26	1	3	2	1	9	7	1	2	0	1	0	9	1	1	10	1	0	10	1	8	1	1	11	1
27	1	3	4	1	9	1	1	2	8	1	1	3	1	2	9	1	1	4	1	8	6	1	11	7
28	1	3	6	1	8	11	1	3	10	1	1	11	1	3	10	1	2	0	1	8	11	1	12	2
29	1	3	8	1	9	0	1	5	0	1	2	5	1	4	11	1	2	6	1	9	4	1	12	6
30	1	3	10	1	8	9	1	6	3	1	3	0	1	6	0	1	3	2	1	10	3	1	13	3
31	1	4	0	1	9	4	1	6	11	1	3	7	1	7	0	1	3	8	1	10	9	1	13	10
32	1	4	2	1	9	5	1	7	11	1	4	1	1	7	10	1	4	2	1	11	3	1	14	5
33	1	4	4	1	9	2	1	8	8	1	4	8	1	8	6	1	4	9	1	11	9	1	15	0
34	1	4	6	1	8	11	1	8	11	1	5	3	1	9	1	1	5	3	1	12	9	1	15	8
35	1	4	8	1	8	11	1	9	2	1	5	9	1	10	0	1	5	9	1	13	4	1	16	4
36	1	4	10	1	9	3	1	9	9	1	6	3	1	11	2	1	6	3	1	13	11	1	17	0
37	1	5	0	1	10	0	1	11	10	1	7	0	1	11	7	1	7	0	1	15	0	1	17	9
38	1	5	3	1	10	5	1	13	11	1	7	8	1	13	6	1	7	8	1	15	8	1	18	6
39	1	5	6	1	11	1	1	14	5	1	8	6	1	14	5	1	8	6	1	16	4	1	19	3
40	1	6	0	1	11	7	1	14	10	1	9	5	1	14	10	1	9	6	1	17	7	2	0	7
41	1	6	6	1	12	0	1	15	3	1	10	5	1	15	4	1	10	6	1	18	4	2	2	0
42	1	7	0	1	12	8	1	15	9	1	11	6	1	15	11	1	11	6	1	19	8	2	3	6
43	1	7	6	1	12	9	1	16	4	1	12	6	1	16	6	1	12	6	2	0	6	2	4	6
44	1	8	0	1	13	2	1	16	5	1	13	6	1	16	11	1	13	6	2	1	5	2	5	7
45	1	8	6	1	13	3	1	17	1	1	14	9	1	17	6	1	14	9	2	2	3	2	6	8
46	1	9	0	1	13	3	1	17	8	1	16	0	1	18	0	1	16	0	2	3	3	2	7	10
47	1	9	6	1	13	4	1	18	9	1	17	10	1	18	8	1	17	9	2	4	3	2	9	0
48	1	10	6	1	14	8	1	19	2	1	19	8	1	19	2	1	19	6	2	5	11	2	10	3
49	1	11	6	1	16	4	1	19	8	2	1	6	1	19	7	2	1	3	2	7	0	2	12	3
50	1	13	6	1	19	6	2	0	5	2	3	7	2	0	10	2	3	0	2	9	7	2	15	1
51	1	16	3	2	2	3	2	2	9	2	5	4	2	2	6	2	4	6	2	12	4	2	17	5
52	1	19	6	2	5	11	2	5	1	2	7	2	2	4	1	2	6	3	2	14	6	2	19	1
53	2	3	0	2	9	11	2	6	11	2	9	2	2	6	0	2	8	0	2	16	1	3	1	0
54	2	6	6	2	14	6	2	9	10	2	11	5	2	8	5	2	10	-0	2	17	9	3	3	0
55	2	10	0	2	18	1	2	14	11	2	14	0	2	12	10	2	12	0	3	0	4	3	5	1
56	2	13	6	2	19	9	2	18	10	2	18	3	2	18	0	2	14	6	3	2	3	3	7	4
57	2	17	0	3	3	8	3	1	4	3	1	5	3	1	6	2	17	6	3	4	4	3	9	9
58	3	0	6	3	6	0	3	5	9	3	4	7	3	6	0	3	0	6	3	7	6	3	12	4
59	3	4	0	3	8	11	3	11	0	3	8	7	3	11	10	3	4	0	3	11	8	3	15	1
60	3	7	6	3	10	2	3	17	4	3	12	10	3	18	1	3	8	0	3	16	3	3	18	8

TABLE I. 1139

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages	National			National Mercantile			National Loan Fund			National Provident			North British			North of Scotland			Norwich Union		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	16	11	0	15	8	0	16	3	1	0	0	0	15	0		..		0	17	3
17	0	17	5	0	16	0	0	16	6	1	0	4	0	15	6		..		0	19	0
18	0	17	8	0	16	6	0	16	8	1	0	8	0	15	7		..		1	1	0
19	0	17	9	0	17	0	0	16	10	1	1	1	0	15	8		..		1	2	6
20	0	17	11	0	17	6	0	17	0	1	1	6	0	15	10	0	17	0	1	4	6
21	0	18	1	0	18	0	0	17	3	1	2	0	0	15	11	0	17	4	1	6	0
22	0	18	4	0	18	6	0	17	6	1	2	5	0	16	0	0	17	7	1	6	6
23	0	18	11	0	19	0	0	17	9	1	2	11	0	16	2	0	17	11	1	6	10
24	0	19	1	0	19	6	0	18	0	1	3	5	0	16	3	0	18	4	1	7	3
25	0	19	9	1	0	0	0	18	3	1	3	11	0	16	5	0	18	8	1	7	8
26	1	0	6	1	0	8	0	18	6	1	4	5	0	16	6	0	19	0	1	8	0
27	1	1	3	1	1	4	0	18	9	1	5	0	0	17	5	0	19	10	1	8	6
28	1	1	8	1	2	0	0	19	0	1	5	6	0	19	6	1	0	6	1	9	0
29	1	2	3	1	2	8	0	19	3	1	6	2	1	2	0	1	1	4	1	9	8
30	1	3	0	1	3	6	0	19	6	1	6	10	1	2	8	1	2	2	1	11	2
31	1	4	5	1	4	4	0	19	9	1	7	7	1	3	3	1	3	0	1	10	8
32	1	5	3	1	5	0	1	0	0	1	8	4	1	3	10	1	3	10	1	11	3
33	1	5	6	1	5	6	1	0	4	1	9	1	1	4	6	1	4	6	1	12	0
34	1	6	5	1	6	0	1	0	9	1	9	11	1	5	2	1	5	0	1	12	8
35	1	6	8	1	6	6	1	1	3	1	10	10	1	5	9	1	5	9	1	13	4
36	1	7	0	1	7	4	1	1	9	1	11	9	1	6	5	1	6	7	1	14	0
37	1	7	11	1	8	0	1	2	3	1	12	9	1	7	2	1	7	2	1	14	9
38	1	9	5	1	9	0	1	2	9	1	13	9	1	7	10	1	8	0	1	15	6
39	1	9	11	1	10	0	1	3	3	1	14	10	1	8	5	1	8	11	1	16	3
40	1	10	11	1	11	0	1	3	10	1	15	11	1	9	2	1	10	0	1	17	2
41	1	12	0	1	12	0	1	4	5	1	17	1	1	10	10	1	11	3	1	18	6
42	1	13	2	1	13	0	1	5	0	1	18	5	1	12	2	1	12	3	1	19	10
43	1	14	11	1	14	0	1	5	8	1	19	10	1	12	8	1	13	0	2	0	10
44	1	17	6	1	15	4	1	6	4	2	1	3	1	13	2	1	13	9	2	1	6
45	1	18	5	1	16	8	1	7	1	2	2	10	1	13	4	1	14	4	2	2	4
46	1	19	7	1	17	8	1	8	0	2	4	6	1	13	10	1	14	11	2	3	4
47	2	0	3	1	19	0	1	9	0	2	6	2	1	14	7	1	15	10	2	4	6
48	2	3	2	2	0	0	1	10	2	2	7	11	1	15	3	1	16	5	2	5	8
49	2	4	10	2	1	4	1	11	6	2	9	9	1	15	11	1	17	0	2	7	6
50	2	6	1	2	3	0	1	13	0	2	11	8	1	16	8	1	17	8	2	10	0
51	2	8	6	2	5	0	1	14	8	2	13	9	1	17	4	1	18	2	2	12	10
52	2	12	0	2	7	6	1	16	6	2	16	1	1	18	0	1	19	0	2	14	8
53	2	17	7	2	10	0	1	18	6	2	18	6	1	18	9	2	0	6	2	16	6
54	3	2	2	2	12	6	2	0	8	3	0	11	1	19	5	2	3	0	2	18	6
55	3	5	6	2	15	6	2	3	0	3	3	7	2	0	1	2	6	0	3	0	6
56	3	7	11	2	18	6	2	5	8	3	6	6	2	2	7		..		3	2	6
57	3	10	9	3	1	6	2	8	8	3	9	2	2	6	10		..		3	4	6
58	3	13	4	3	4	6	2	12	0	3	12	1	2	14	3		..		3	7	0
59	3	19	8	3	7	6	2	15	9	3	15	3	3	3	4		..		3	10	0
60	4	2	9	3	10	6	3	0	0	3	18	7	3	13	1		..		3	13	0

TABLE I.

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	Palladium.			Pelican.			Promoter.			Protector.			Protestant Dissenters.			Provident.			Reliance.			Rock.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.		£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	16	9	0	17	11	0	14	4	0	17	4	..			0	19	2	0	15	6	0	19	3
17	0	18	6	0	18	4	0	14	8	0	19	1	..			1	1	2	0	16	0	1	1	1
18	1	0	4	0	18	9	0	15	1	1	0	10	..			1	3	3	0	17	0	1	3	3
19	1	1	10	0	19	■	0	15	6	1	2	8	..			1	5	0	0	18	0	1	5	0
20	1	3	10	0	19	7	0	15	11	1	4	7	0	19	0	1	7	3	0	18	2	1	7	3
21	1	5	2	1	0	1	0	16	4	1	5	9	0	19	0	1	8	10	0	18	4	1	8	11
22	1	6	7	1	0	7	0	16	10	1	6	6	0	19	6	1	9	3	0	18	5	1	9	3
23	1	5	11	1	1	1	0	17	4	1	6	11	0	19	11	1	9	8	0	19	6	1	9	0
24	1	6	4	1	1	7	0	17	10	1	7	3	1	0	4	1	10	2	0	19	8	1	10	3
25	1	6	9	1	2	2	0	18	4	1	7	8	1	1	2	1	10	7	0	19	10	1	10	7
26	1	7	2	1	2	9	0	18	11	1	8	1	1	1	8	1	11	1	1	0	0	1	11	1
27	1	7	8	1	3	4	0	19	5	1	8	5	1	2	1	1	11	7	1	1	1	1	11	7
28	1	8	1	1	3	11	1	0	1	1	8	11	1	2	7	1	12	1	1	2	3	1	12	1
29	1	8	7	1	4	7	1	0	8	1	9	4	1	3	■	1	12	8	1	3	5	1	12	8
30	1	9	1	1	5	3	1	1	5	1	10	3	1	4	0	1	13	3	1	3	6	1	13	3
31	1	9	7	1	6	0	1	2	1	1	10	9	1	4	5	1	13	9	1	4	11	1	13	10
32	1	10	1	1	6	9	1	2	10	1	11	3	1	5	3	1	14	4	1	6	2	1	14	5
33	1	10	8	1	7	7	1	3	6	1	11	9	1	6	1	1	15	0	1	6	5	1	15	0
34	1	11	2	1	8	5	1	4	4	1	12	9	1	6	11	1	15	8	1	6	8	1	15	8
35	1	11	9	1	9	3	1	5	1	1	13	4	1	7	4	1	16	4	1	6	0	1	16	4
36	1	12	4	1	10	2	1	5	11	1	13	11	1	8	3	1	17	0	1	8	4	1	17	0
37	1	13	0	1	11	2	1	6	8	1	15	0	1	9	2	1	17	9	1	9	9	1	17	9
38	1	13	8	1	12	2	1	7	6	1	15	8	1	10	7	1	18	6	1	10	1	1	18	6
39	1	14	4	1	13	2	1	8	4	1	16	4	1	11	6	1	19	3	1	10	6	1	19	3
40	1	15	6	1	14	3	1	9	1	1	17	7	1	12	0	2	0	8	1	10	10	2	0	8
41	1	16	9	1	15	4	1	9	11	1	18	4	1	13	7	2	2	0	1	11	3	2	2	0
42	1	18	1	1	16	6	1	10	7	1	19	8	1	14	8	2	3	6	1	11	6	2	3	6
43	1	18	11	1	17	9	1	11	2	2	0	6	1	15	9	2	4	6	1	13	2	2	4	6
44	1	19	10	1	19	0	1	11	11	2	1	5	1	17	4	2	5	6	1	14	10	2	5	6
45	2	0	9	2	0	4	1	12	5	2	2	3	1	19	7	2	6	8	1	15	4	2	6	8
46	2	1	9	2	1	9	1	13	0	2	3	3	2	0	8	2	7	10	1	15	10	2	7	10
47	2	2	10	2	3	3	1	13	7	2	4	3	2	2	4	2	9	0	1	17	7	2	9	0
48	2	4	0	2	4	9	1	14	4	2	5	11	2	4	1	2	10	3	1	19	5	2	10	3
49	2	5	8	2	6	6	1	15	2	2	7	0	2	5	10	2	12	3	2	1	3	2	12	3
50	2	8	2	2	8	4	1	16	5	2	9	7	2	8	0	2	15	1	2	4	6	2	15	1
51	2	11	8	2	10	3	1	18	1	2	12	4	2	10	3	2	17	4	2	7	11	2	17	4
52	2	14	6	2	12	4	2	0	2	2	14	6	2	12	7	2	19	1	2	11	6	2	19	1
53	2	17	11	2	14	6	2	2	8	2	16	1	2	15	8	3	1	0	2	15	4	3	1	0
54	3	1	4	2	16	10	2	5	6	2	17	9	2	17	8	3	3	0	2	16	7	3	3	0
55	3	5	1	2	19	4	2	8	10	3	0	4	2	19	9	3	5	0	2	19	4	3	5	0
56	3	7	3	3	1	11	2	12	7	3	2	3	3	3	2	3	7	3	3	2	3	3	7	3
57	3	9	8	3	4	9	2	16	8	3	4	4	3	7	5	3	9	8	3	5	4	3	9	8
58	3	12	4	3	7	8	3	1	2	3	7	5	3	11	4	3	12	3	3	8	8	3	12	3
59	3	15	1	3	10	11	3	5	11	3	11	8	3	16	3	3	15	1	3	12	2	3	15	1
60	3	18	2	3	14	4	3	10	11	3	16	3	4	1	0	3	18	1	3	14	5	3	18	1

TABLE I. 1141

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year.

Ages.	Royal Exchange.			Royal Naval, &c.			Scottish Union.			Scottish Widows' Fund.			Sun.			Union.			United Kingdom.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	19	3	0	17	2		..		0	19	2	0	15	1	0	15	0	0	14	8
17	1	1	3	0	17	10		..		1	1	2	0	15	7	0	16	10	0	15	6
18	1	3	3	0	18	6		..		1	3	3	0	16	5	0	18	0	0	16	4
19	1	5	0	0	19	2		..		1	5	0	0	17	4	0	19	1	0	17	4
20	1	7	3	0	19	9	0	15	0	1	7	3	0	19	1	1	1	0	0	18	4
21	1	8	9	1	0	6	0	16	5	1	8	10	1	0	0	1	2	1	0	19	2
22	1	9	3	1	1	3	0	18	0	1	9	3	1	1	0	1	2	11	0	19	9
23	1	9	9	1	2	0	0	19	7	1	9	8	1	2	0	1	3	1	1	0	4
24	1	10	3	1	2	9	1	1	2	1	10	2	1	2	8	1	3	5	1	0	10
25	1	10	6	1	3	5	1	2	8	1	10	7	1	3	3	1	4	1	1	1	4
26	1	11	0	1	4	1	1	3	8	1	11	1	1	3	11	1	4	7	1	1	11
27	1	11	6	1	4	9	1	4	2	1	11	7	1	4	7	1	5	0	1	2	4
28	1	12	0	1	5	5	1	4	8	1	12	1	1	5	4	1	5	4	1	2	11
29	1	12	9	1	6	3	1	5	3	1	12	8	1	6	0	1	6	0	1	3	5
30	1	13	3	1	6	11	1	5	10	1	13	3	1	6	9	1	6	5	1	3	11
31	1	13	9	1	7	9	1	6	6	1	13	9	1	7	0	1	7	1	1	4	5
32	1	14	3	1	8	7	1	7	2	1	14	4	1	7	4	1	7	6	1	4	11
33	1	15	0	1	9	5	1	7	10	1	15	0	1	7	8	1	8	0	1	5	4
34	1	15	9	1	10	2	1	8	7	1	15	8	1	8	0	1	8	5	1	5	10
35	1	16	3	1	10	11	1	9	5	1	16	4	1	8	4	1	9	1	1	6	5
36	1	17	0	1	11	9	1	10	3	1	17	0	1	8	8	1	9	5	1	6	11
37	1	17	9	1	12	7	1	11	1	1	17	9	1	9	0	1	10	0	1	7	7
38	1	18	6	1	13	5	1	12	0	1	18	6	1	9	5	1	10	6	1	8	3
39	1	19	3	1	14	3	1	13	0	1	19	3	1	11	3	1	11	0	1	9	0
40	2	0	9	1	15	0	1	14	0	2	0	8	1	13	7	1	11	10	1	10	2
41	2	2	0	1	15	9	1	15	1	2	2	0	1	15	8	1	13	1	1	11	4
42	2	3	6	1	16	6	1	16	3	2	3	6	1	17	3	1	14	1	1	12	5
43	2	4	6	1	17	3	1	17	5	2	4	6	1	17	10	1	15	1	1	13	3
44	2	5	6	1	18	1	1	18	8	2	5	6	1	19	0	1	16	1	1	14	2
45	2	6	9	1	18	11	1	19	11	2	6	8	2	1	10	1	18	6	1	15	5
46	2	7	9	2	0	9	2	1	4	2	7	10	2	3	8	2	0	9	1	16	6
47	2	9	0	2	2	7	2	2	9	2	9	0	2	4	6	2	2	11	1	17	7
48	2	10	3	2	4	5	2	4	4	2	10	3	2	5	4	2	5	3	1	18	7
49	2	12	3	2	6	2	2	5	11	2	12	3	2	8	0	2	8	5	2	0	2
50	2	15	0	2	7	11	2	7	8	2	15	1	2	10	9	2	12	4	2	2	2
51	2	17	3	2	10	1	2	9	6	2	17	4	2	13	8	2	14	6	2	4	1
52	2	19	0	2	12	3	2	11	11	2	19	1	2	15	7	2	16	2	2	5	10
53	3	1	0	2	14	5	2	14	7	3	1	0	2	18	2	2	18	0	2	7	9
54	3	3	0	2	16	7	2	17	5	3	3	0	3	0	4	2	19	11	2	9	9
55	3	5	0	2	18	8	3	0	6	3	5	0	3	2	7	3	1	9	2	12	1
56	3	7	3	3	1	11	3	3	9	3	7	3	3	6	4	3	3	11	2	15	0
57	3	9	9	3	5	2	3	7	0	3	9	8	3	9	8	3	6	3	2	18	1
58	3	12	3	3	8	5	3	10	8	3	12	3	3	12	7	3	8	8	3	1	5
59	3	15	0	3	11	8	3	14	8	3	15	1	3	15	8	3	11	4	3	4	11
60	3	18	0	3	15	0	3	18	11	3	18	1	4	3	7	3	14	3	3	9	5

Annual Premiums for Assuring the Sum of £100 on a Single Life for One Year,

Ages.	Universal.			University.			Victoria.			West-minster.			West-minster and General.			West of England.			York and London.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	0	19	0	0	18	3	0	16	9	0	19	2	0	18	7	0	17	4	..		
17	0	19	10	1	0	2	0	17	3	1	1	2	0	18	10	0	19	0	..		
18	1	0	9	1	2	2	0	18	0	1	3	3	1	0	0	1	1	0	..		
19	1	1	7	1	3	9	0	18	6	1	5	0	1	1	6	1	2	6	..		
20	1	1	9	1	5	11	0	19	3	1	7	3	1	4	2	1	4	6	0	17	3
21	1	1	11	1	7	5	1	0	0	1	8	10	1	6	4	1	6	0	0	17	9
22	1	2	9	1	7	10	1	0	9	1	9	3	1	7	9	1	6	3	0	18	3
23	1	3	0	1	8	3	1	1	0	1	9	8	1	9	2	1	6	8	0	18	9
24	1	3	10	1	8	8	1	1	6	1	10	2	1	9	6	1	7	3	0	19	3
25	1	4	1	1	9	1	1	1	9	1	10	7	1	9	11	1	7	6	0	19	10
26	1	5	0	1	9	7	1	2	1	1	11	1	1	10	3	1	8	0	1	0	5
27	1	6	1	1	10	1	1	2	8	1	11	7	1	10	9	1	8	6	1	1	0
28	1	7	0	1	10	6	1	3	3	1	12	1	1	11	1	1	8	10	1	1	9
29	1	8	1	1	11	1	1	3	11	1	12	8	1	11	7	1	9	4	1	2	6
30	1	8	4	1	11	8	1	4	9	1	13	3	1	12	0	1	10	0	1	3	3
31	1	9	5	1	12	1	1	5	7	1	13	9	1	12	5	1	10	6	1	4	0
32	1	10	6	1	12	8	1	6	5	1	14	4	1	12	9	1	11	0	1	4	9
33	1	10	10	1	13	3	1	7	3	1	15	0	1	13	2	1	11	6	1	5	6
34	1	11	2	1	13	11	1	8	1	1	15	8	1	13	6	1	12	3	1	6	3
35	1	12	5	1	14	7	1	9	0	1	16	4	1	13	11	1	12	9	1	7	0
36	1	12	9	1	15	2	1	9	10	1	17	0	1	14	3	1	13	4	1	7	9
37	1	14	0	1	15	11	1	10	8	1	17	9	1	14	9	1	14	0	1	8	6
38	1	14	5	1	16	7	1	11	6	1	18	6	1	15	2	1	14	8	1	9	3
39	1	14	10	1	17	4	1	12	4	1	19	3	1	15	9	1	15	3	1	10	0
40	1	15	4	1	18	8	1	13	2	2	0	8	1	16	2	1	16	8	1	10	11
41	1	15	10	1	19	11	1	14	0	2	2	0	1	16	8	1	17	10	1	11	11
42	1	16	4	2	1	4	1	14	11	2	3	6	1	17	2	1	19	3	1	12	11
43	1	17	8	2	2	4	1	15	10	2	4	6	1	17	10	2	0	0	1	14	0
44	1	19	1	2	3	3	1	16	8	2	5	6	1	18	3	2	1	0	1	15	1
45	1	19	8	2	4	4	1	17	7	2	6	8	1	19	0	2	2	0	1	16	6
46	2	0	4	2	5	6	1	18	5	2	7	10	1	19	10	2	3	0	1	17	11
47	2	1	10	2	6	7	1	19	4	2	9	0	2	0	10	2	4	0	1	19	4
48	2	3	7	2	8	0	2	0	3	2	10	3	2	1	11	2	5	3	2	0	9
49	2	5	3	2	10	2	2	1	1	2	12	3	2	3	0	2	7	0	2	2	2
50	2	8	2	2	13	2	2	2	0	2	15	1	2	4	9	2	9	7	2	3	7
51	2	11	2	2	15	8	2	4	1	2	17	4	2	7	0	2	11	9	2	5	3
52	2	14	4	2	17	8	2	6	10	2	19	1	2	9	7	2	13	2	2	7	3
53	2	17	9	2	19	10	2	9	1	3	1	0	2	14	0	2	15	0	2	9	4
54	2	19	2	3	2	1	2	11	6	3	3	0	2	18	9	2	16	9	2	11	5
55	3	1	8	3	4	5	2	14	0	3	5	0	3	2	10	2	18	6	2	14	0
56	3	4	6	3	6	11	2	16	8	3	7	3	3	6	6	3	0	6	2	16	7
57	3	7	4	3	9	8	3	1	0	3	9	8	3	9	9	3	3	6	2	19	2
58	3	10	6	3	12	3	3	6	9	3	12	3	3	12	4	3	7	4	3	1	9
59	3	13	9	3	15	1	3	14	0	3	15	1	3	15	1	3	10	6	3	4	6
60	3	16	0	3	18	1	4	1	10	3	18	1	3	18	2	3	14	2	3	7	7

TABLE II.   1143

al Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, without Participation.

Achilles.			Albion.			Alfred.			Argus.			Asylum.			Britannia.			British Commercial.		
£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
1	12	4	1	12	6	1	12	5	1	8	4	1	8	6	1	9	11	1	11	10
1	13	2	1	13	3	1	13	3	1	9	0	1	9	3	1	10	6	1	12	7
1	14	0	1	14	0	1	14	2	1	9	8	1	10	1	1	11	2	1	13	6
1	14	10	1	15	0	1	15	1	1	10	5	1	10	11	1	11	9	1	14	6
1	15	8	1	15	9	1	16	1	1	11	2	1	11	9	1	12	5	1	15	5
1	16	7	1	16	6	1	17	1	1	11	11	1	12	7	1	13	1	1	16	5
1	17	6	1	17	6	1	18	1	1	12	8	1	13	6	1	13	9	1	17	5
1	18	6	1	18	3	1	19	1	1	13	5	1	14	5	1	14	6	1	18	5
1	19	7	1	19	0	2	0	2	1	14	3	1	15	5	1	15	3	1	19	6
2	0	8	2	0	0	2	1	3	1	15	1	1	16	5	1	16	0	2	0	6
2	1	8	2	1	0	2	2	4	1	15	11	1	17	6	1	16	10	2	1	7
2	2	8	2	2	3	2	3	6	1	16	10	1	18	6	1	17	9	2	2	8
2	3	9	2	3	6	2	4	8	1	17	10	1	19	8	1	18	8	2	3	11
2	4	10	2	5	0	2	5	10	1	18	10	2	0	10	1	19	7	2	5	0
2	5	11	2	6	0	2	7	1	1	19	10	2	2	0	2	0	8	2	6	2
2	7	1	2	7	3	2	8	5	2	0	11	2	3	3	2	1	9	2	7	6
2	8	2	2	8	6	2	9	9	2	2	1	2	4	6	2	2	10	2	8	10
2	9	8	2	10	0	2	11	1	2	3	3	2	5	10	2	4	1	2	10	1
2	11	2	2	11	6	2	12	6	2	4	6	2	7	3	2	5	5	2	11	6
2	12	8	2	13	0	2	14	0	2	5	10	2	8	9	2	6	9	2	12	11
2	14	4	2	14	9	2	15	7	2	7	3	2	10	3	2	8	3	2	14	4
2	16	1	2	16	6	2	17	2	2	8	9	2	11	10	2	9	10	2	15	10
2	17	10	2	18	6	2	18	11	2	10	4	2	13	6	2	11	5	2	17	5
2	19	7	3	0	0	3	0	8	2	12	0	2	15	3	2	13	2	2	19	1
3	1	4	3	2	3	3	2	6	2	13	9	2	17	1	2	15	1	3	0	11
3	3	6	3	4	3	3	4	6	2	15	8	2	19	0	2	17	1	3	2	10
3	5	8	3	6	3	3	6	6	2	17	8	3	1	0	2	19	2	3	4	10
3	7	10	3	8	6	3	8	7	2	19	10	3	3	2	3	1	5	3	6	11
3	10	1	3	10	6	3	10	10	3	2	2	3	5	4	3	3	9	3	9	2
3	12	4	3	12	6	3	13	2	3	4	7	3	7	9	3	6	3	3	11	7
3	14	10	3	15	0	3	15	7	3	7	2	3	10	3	3	8	11	3	14	1
3	17	4	3	17	6	3	18	1	3	9	11	3	12	11	3	11	9	3	16	8
4	0	1	4	0	6	4	0	9	3	12	10	3	15	9	3	14	10	3	19	6
4	2	10	4	3	6	4	3	7	3	15	11	3	18	9	3	18	0	4	2	4
4	5	7	4	7	0	4	6	6	3	19	3	4	2	0	4	1	4	4	6	0
4	8	10	4	11	0	4	9	6	4	2	9	4	5	5	4	5	0	4	9	6
4	12	4	4	15	0	4	12	9	4	6	6	4	9	2	4	8	9	4	13	3
4	16	10	4	19	6	4	16	2	4	10	6	4	13	2	4	12	10	4	16	7
5	1	10	5	2	9	4	19	9	4	14	9	4	17	7	4	17	1	5	0	0
5	6	10	5	6	3	5	3	6	4	19	3	5	2	3	5	1	8	5	5	0
5	11	11	5	10	0	5	7	5	5	4	0	5	7	4	5	6	6	5	10	1
5	17	2	5	14	0	5	11	7	5	9	2	5	12	9	5	11	8	5	14	0
6	2	8	5	18	3	5	16	0	5	14	7	5	18	5	5	17	1	5	18	2
6	8	5	6	2	9	6	0	8	5	17	9	6	4	5	6	2	11	6	2	8
6	14	7	6	7	3	6	5	8	6	0	10	6	10	9	6	9	1	6	7	4

TABLE II.

Annual Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, without Participation.

Ages.	British Empire.			Caledonian.			Church of England.			City of Glasgow.			Edinburgh.			English and Scottish Law.			Family Endowment.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	10	8	1	10	7	1	11	3	1	12	7	1	11	1	1	12	4	1	10	9
17	1	11	6	1	11	3	1	11	11	1	13	6	1	11	11	1	13	2	1	11	6
18	1	12	2	1	12	1	1	12	7	1	14	5	1	12	8	1	14	0	1	12	4
19	1	13	4	1	12	11	1	13	3	1	15	4	1	13	5	1	14	10	1	13	3
20	1	14	0	1	13	7	1	13	11	1	16	2	1	14	2	1	15	8	1	14	3
21	1	14	10	1	14	5	1	14	8	1	17	2	1	15	0	1	16	7	1	15	1
22	1	15	9	1	15	4	1	15	4	1	17	11	1	15	10	1	17	6	1	16	1
23	1	16	9	1	16	3	1	16	2	1	18	9	1	16	8	1	18	6	1	17	0
24	1	17	9	1	17	4	1	16	11	1	19	7	1	17	6	1	19	7	1	18	1
25	1	18	9	1	18	4	1	17	9	2	0	6	1	18	6	2	0	8	1	19	1
26	1	19	10	1	19	4	1	18	8	2	1	5	1	19	5	2	1	8	2	0	0
27	2	1	0	2	0	6	1	19	7	2	2	6	2	0	5	2	2	8	2	1	3
28	2	2	2	2	1	9	2	0	6	2	3	7	2	1	6	2	3	9	2	2	4
29	2	3	4	2	2	10	2	1	6	2	4	7	2	2	6	2	4	10	2	3	5
30	2	4	6	2	4	0	2	2	7	2	5	8	2	3	7	2	5	11	2	4	7
31	2	5	10	2	5	1	2	3	9	2	6	10	2	4	9	2	7	1	2	6	0
32	2	7	1	2	6	3	2	5	0	2	8	1	2	6	0	2	8	2	2	7	2
33	2	8	5	2	7	5	2	6	3	2	9	4	2	7	3	2	9	8	2	8	4
34	2	9	9	2	8	10	2	7	7	2	10	7	2	8	7	2	11	2	2	9	9
35	2	11	3	2	10	2	2	9	1	2	12	1	2	10	0	2	12	8	2	11	1
36	2	12	9	2	11	10	2	10	7	2	13	5	2	11	5	2	14	4	2	12	2
37	2	14	4	2	13	5	2	12	2	2	14	11	2	12	11	2	16	1	2	13	10
38	2	15	11	2	15	1	2	13	11	2	16	9	2	14	6	2	17	10	2	15	10
39	2	17	8	2	16	7	2	15	9	2	18	4	2	16	2	2	19	7	2	18	0
40	2	19	6	2	18	6	2	17	8	3	0	0	2	17	11	3	1	4	3	0	3
41	3	1	6	3	0	4	2	19	9	3	1	11	2	19	9	3	3	6	3	2	1
42	3	3	7	3	2	1	3	1	11	3	3	7	3	1	7	3	5	8	3	3	10
43	3	5	9	3	3	11	3	4	3	3	5	6	3	3	7	3	7	10	3	5	9
44	3	8	1	3	5	10	3	6	8	3	7	7	3	5	9	3	10	1	3	7	9
45	3	10	6	3	7	11	3	9	4	3	9	9	3	8	0	3	12	4	3	9	10
46	3	13	1	3	10	3	3	12	1	3	12	0	3	10	4	3	14	10	3	12	2
47	3	15	11	3	12	7	3	15	0	3	14	7	3	12	11	3	17	4	3	14	8
48	3	18	10	3	15	3	3	18	1	3	17	1	3	15	7	4	0	1	3	17	2
49	4	1	11	3	18	3	4	1	5	3	19	8	3	18	6	4	2	10	4	0	5
50	4	5	1	4	1	8	4	4	11	4	2	6	4	1	7	4	5	7	4	4	9
51	4	8	5	4	5	2	4	8	7	4	5	5	4	4	11	4	8	10	4	8	10
52	4	11	10	4	9	0	4	12	6	4	8	9	4	8	4	4	12	4	4	12	1
53	4	15	4	4	13	3	4	16	8	4	12	3	4	12	0	4	16	10	4	15	6
54	4	18	11	4	17	7	5	1	1	4	15	11	4	15	11	5	1	10	4	18	9
55	5	2	9	5	2	5	5	5	10	4	19	10	5	0	0	5	6	10	5	2	5
56	5	6	9	5	7	6	5	10	10	5	3	8	5	4	5	5	11	11	5	6	1
57	5	11	0	5	12	11	5	16	1	5	7	8	5	9	0	5	17	2	5	9	10
58	5	15	6	5	18	10	6	1	9	5	11	11	5	13	11	6	2	8	5	13	10
59	6	0	3	6	4	8	6	7	9	5	16	8	5	19	0	6	8	5	5	18	1
60	6	5	3	6	10	5	6	14	2	6	1	7	6	4	4	6	14	7	6	2	5

TABLE II. 1145

nual Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, without Participation.

	Farmers.			Freemasons.			Globe.			Hand in Hand.			Imperial.			Legal.			Licensed Victuallers.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
	1	12	6	1	11	0	1	19	8	1	10	9	1	13	7	1	12	11	1	10	0
	1	13	1	1	11	7	2	0	8	1	11	8	1	14	5	1	13	9	1	10	9
	1	13	6	1	12	2	2	1	8	1	12	7	1	15	3	1	14	7	1	11	6
	1	14	3	1	12	9	2	2	8	1	13	6	1	16	1	1	15	5	1	12	4
	1	14	11	1	13	6	2	3	7	1	14	5	1	16	11	1	16	4	1	13	0
	1	15	8	1	14	2	2	4	6	1	15	4	1	17	9	1	17	2	1	13	7
	1	16	5	1	15	0	2	5	4	1	16	4	1	18	8	1	18	1	1	14	0
	1	17	∎	1	15	8	2	6	3	1	17	5	1	19	8	1	19	1	1	14	6
	1	18	1	1	16	8	2	7	1	1	18	5	2	0	8	2	0	1	1	15	1
	1	18	11	1	17	6	2	8	1	1	19	6	2	1	8	2	1	1	1	15	8
	1	19	10	1	18	6	2	9	0	2	0	8	2	2	8	2	2	2	1	16	4
	2	0	10	1	19	6	2	10	1	2	1	10	2	3	9	2	3	3	1	17	0
	2	1	10	2	0	6	2	11	1	2	3	0	2	4	10	2	4	4	1	17	10
	2	2	∎	2	1	7	2	12	3	2	4	3	2	5	11	2	5	6	1	18	8
	2	4	1	2	2	8	2	13	5	2	5	6	2	7	0	2	6	9	1	19	8
	2	5	∎	2	3	10	2	14	7	2	6	9	2	8	2	2	8	0	2	1	0
	2	6	6	2	5	0	2	15	9	2	8	1	2	9	5	2	9	4	2	2	4
	2	7	10	2	6	∎	2	17	1	2	9	5	2	10	8	2	10	8	2	3	10
	2	9	∎	2	7	5	2	18	5	2	10	10	2	11	11	2	12	1	2	5	2
	2	10	8	2	9	2	2	19	10	2	12	4	2	13	3	2	13	7	2	6	6
	2	12	1	2	10	9	3	1	4	2	13	10	2	14	8	2	15	1	2	7	11
	2	13	7	2	12	3	3	2	10	2	15	6	2	16	2	2	16	8	2	9	4
	2	15	2	2	13	11	3	4	6	2	17	2	2	17	8	2	18	4	2	11	0
	2	16	11	2	15	7	3	6	2	2	18	11	2	19	3	3	0	1	2	12	6
	2	18	10	2	17	5	3	7	11	3	0	9	3	0	11	3	1	11	2	14	3
	3	0	9	2	19	3	3	9	10	3	2	9	3	2	9	3	3	10	2	16	6
	3	2	9	3	1	2	3	11	8	3	4	11	3	4	8	3	5	10	2	18	9
	3	4	10	3	3	3	3	13	8	3	7	2	3	6	9	3	8	0	3	0	10
	3	7	2	3	5	6	3	15	9	3	9	7	3	8	10	3	10	3	3	3	4
	3	9	7	3	7	11	3	17	11	3	12	0	3	11	1	3	12	7	3	6	0
	3	12	2	3	10	6	4	0	2	3	14	8	3	13	6	3	15	1	3	8	10
	3	14	∎	3	13	2	4	2	7	3	17	6	3	16	0	3	17	9	3	12	0
	3	17	10	3	16	1	4	5	1	4	0	6	3	18	9	4	0	7	3	15	4
	4	1	0	3	19	2	4	7	10	4	3	7	4	1	6	4	3	7	3	19	2
	4	4	5	4	2	6	4	10	7	4	6	11	4	4	6	4	6	9	4	3	4
	4	8	1	4	6	0	4	13	5	4	10	4	4	7	6	4	10	3	4	7	0
	4	11	10	4	9	9	4	16	5	4	13	9	4	10	8	4	13	11	4	10	6
	4	15	10	4	13	9	4	19	7	4	17	4	4	13	10	4	17	11	4	14	9
	5	0	∎	4	17	7	5	2	10	5	1	0	4	17	1	5	2	3	4	19	6
	5	4	8	5	1	2	5	6	4	5	4	11	5	0	8	5	7	0	5	5	3
	5	9	5	5	6	11	5	10	1	5	9	0	5	4	4	5	12	1	5	9	10
	5	14	6	5	11	11	5	14	0	5	13	4	5	8	3	5	17	5	5	15	0
	5	19	9	5	17	2	5	18	2	5	17	11	5	12	5	6	3	1	6	0	0
	6	5	4	6	2	7	6	2	7	6	2	8	5	16	9	6	9	1	6	5	6
	6	11	2	6	8	3	6	7	4	6	7	4	6	1	4	6	15	5	6	11	2

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, without Participation.

Ages.	London Life Association.			London Corporation.			London, Edinburgh & Dublin.			London and Westminster.			Medical Invalid.			Metropolitan.			Minerva.			National.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	10	8	1	17	1	1	11	4	1	10	8	..			1	11	4	1	13	5	1	10	11
17	1	11	5	1	18	1	1	12	0	1	11	4	..			1	12	0	1	14	4	1	11	6
18	1	12	2	1	19	0	1	12	9	1	12	0	..			1	12	9	1	15	2	1	13	3
19	1	12	11	1	19	11	1	13	6	1	12	10	..			1	13	7	1	16	0	1	12	10
20	1	13	7	2	0	9	1	14	4	1	13	9	..			1	14	5	1	16	10	1	13	7
21	1	14	3	2	1	5	1	15	2	1	14	8	1	13	8	1	15	2	1	17	8	1	14	5
22	1	14	11	2	2	0	1	16	1	1	15	6	1	14	6	1	16	0	1	18	6	1	15	3
23	1	15	7	2	2	7	1	17	1	1	16	8	1	15	6	1	16	9	1	19	4	1	16	2
24	1	16	3	2	3	1	1	18	1	1	17	0	1	16	5	1	17	6	2	0	3	1	17	1
25	1	17	0	2	3	8	1	19	2	1	18	0	1	17	5	1	18	4	2	1	2	1	18	1
26	1	17	9	2	4	3	2	0	3	1	19	0	1	18	6	1	19	3	2	2	2	1	19	1
27	1	18	7	2	5	1	2	1	5	2	0	0	1	19	8	2	0	2	2	3	2	2	0	2
28	1	19	6	2	5	11	2	2	8	2	1	0	2	1	0	2	1	2	2	4	2	2	1	3
29	2	0	5	2	6	10	2	3	10	2	2	0	2	1	11	2	2	1	2	5	3	2	2	5
30	2	1	5	2	7	10	2	4	11	2	3	0	2	2	11	2	3	0	2	6	3	2	3	8
31	2	2	6	2	8	10	2	6	1	2	4	0	2	4	0	2	4	2	2	7	5	2	5	0
32	2	3	8	2	9	11	2	7	3	2	5	0	2	5	3	2	5	3	2	8	7	2	6	4
33	2	4	11	2	11	1	2	8	6	2	6	3	2	6	5	2	6	6	2	9	9	2	7	9
34	2	6	2	2	12	4	2	9	11	2	7	6	2	7	9	2	7	8	2	11	0	2	9	3
35	2	7	6	2	13	8	2	11	4	2	8	9	2	9	2	2	8	10	2	12	4	2	10	9
36	2	8	11	2	15	1	2	12	11	2	10	2	2	10	8	2	10	3	2	13	9	2	12	5
37	2	10	5	2	16	8	2	14	6	2	11	8	2	12	2	2	11	9	2	15	2	2	14	1
38	2	12	0	2	18	2	2	16	2	2	13	0	2	13	9	2	13	3	2	16	7	2	15	11
39	2	13	8	2	19	11	2	18	0	2	14	8	2	15	5	2	14	9	2	18	2	2	17	9
40	2	15	5	3	1	8	2	19	9	2	16	4	2	17	3	2	16	6	2	19	10	2	19	8
41	2	17	3	3	3	6	3	1	7	2	18	0	2	18	11	2	18	2	3	1	7	3	1	9
42	2	19	3	3	5	6	3	3	5	2	19	9	3	0	8	2	19	10	3	3	6	3	3	11
43	3	1	4	3	7	8	3	5	3	3	1	9	3	2	5	3	1	9	3	5	6	3	6	2
44	3	3	7	3	10	0	3	7	3	3	3	9	3	4	4	3	3	9	3	7	4	3	8	8
45	3	6	0	3	12	6	3	9	5	3	5	9	3	6	5	3	5	9	3	9	10	3	11	4
46	3	8	7	3	15	2	3	11	10	3	8	0	3	8	6	3	8	0	3	12	1	3	14	1
47	3	11	5	3	18	2	3	14	2	3	10	6	3	11	0	3	10	4	3	14	8	3	17	0
48	3	14	6	4	1	5	3	16	11	3	13	3	3	13	6	3	12	10	3	17	4	4	0	2
49	3	17	9	4	4	10	3	19	11	3	16	4	3	16	6	3	15	9	4	0	1	4	3	7
50	4	1	2	4	8	5	4	3	4	3	19	10	3	19	9	3	18	8	4	3	0	4	7	2
51	4	4	10	4	12	3	4	7	1	4	3	5	4	3	3	4	1	10	4	6	0	4	11	1
52	4	8	8	4	16	1	4	11	0	4	6	11	4	6	10	4	5	2	4	9	1	4	15	1
53	4	12	7	5	0	1	4	15	2	4	10	10	4	11	1	4	8	8	4	12	4	4	19	5
54	4	16	8	5	4	2	4	19	9	4	15	0	4	15	4	4	12	3	4	15	9	5	3	11
55	5	1	0	5	8	4	5	4	7	5	0	0	5	0	0	4	16	2	4	19	4	5	8	8
56	5	5	6	5	12	8	5	9	9	5	7	0	5	5	0	5	0	6	5	3	0	5	13	10
57	5	10	3	5	17	2	5	15	4	5	12	3	5	10	5	5	5	0	5	6	10	5	19	3
58	5	15	2	6	1	10	6	1	3	5	17	5	5	15	11	5	10	0	5	11	1	6	4	11
59	6	0	4	6	6	10	6	7	5	6	3	3	6	1	9	5	15	0	5	15	6	6	10	10
60	6	5	10	6	12	2	6	13	9	6	9	3	6	7	5	6	0	6	6	0	2	6	17	0

TABLE II. 1147

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, without Participation.

ss.	National Loan Fund. £ s. d.	National Mercantile. £ s. d.	North British. £ s. d.	North of Scotland. £ s. d.	Palladium. £ s. d.	Pelican. £ s. d.	Promoter. £ s. d.	Protector. £ s. d.
6	1 10 3	..	1 11 4	1 12 2	1 14 8	1 14 3	1 8 8	1 13 2
7	1 11 1	..	1 12 2	1 13 2	1 15 7	1 15 0	1 9 5	1 14 2
8	1 11 11	..	1 12 11	1 14 0	1 16 6	1 15 10	1 10 1	1 15 2
9	1 12 9	..	1 13 8	1 14 11	1 17 4	1 16 8	1 10 11	1 16 1
0	1 13 7	..	1 14 5	1 15 7	1 18 2	1 17 7	1 11 8	1 17 0
1	1 14 6	1 15 4	1 15 5	1 16 4	1 18 11	1 18 6	1 12 6	1 17 10
2	1 15 5	1 16 2	1 16 3	1 16 9	1 19 8	1 19 5	1 13 5	1 18 8
3	1 16 5	1 17 2	1 17 3	1 17 2	2 0 5	2 0 5	1 14 4	1 19 6
4	1 17 5	1 18 3	1 18 2	1 17 7	2 1 2	2 1 5	1 15 5	2 0 5
5	1 18 6	1 19 7	1 19 3	1 18 0	2 2 0	2 2 5	1 16 5	2 1 4
6	1 19 7	2 0 5	2 0 5	1 18 7	2 2 11	2 3 6	1 17 6	2 2 4
7	2 0 8	2 1 7	2 1 7	1 19 2	2 3 10	2 4 7	1 18 8	2 3 4
8	2 1 10	2 2 10	2 2 9	2 0 3	2 4 9	2 5 9	1 19 11	2 4 4
9	2 3 1	2 4 0	2 4 0	2 1 0	2 5 8	2 7 0	2 1 1	2 5 6
0	2 4 4	2 5 3	2 4 11	2 1 11	2 6 8	2 8 3	2 2 2	2 6 7
1	2 5 7	2 6 2	2 6 2	2 2 9	2 7 9	2 9 6	2 3 3	2 7 0
2	2 6 10	2 7 6	2 7 5	2 3 9	2 8 10	2 10 10	2 4 5	2 9 0
3	2 8 2	2 8 9	2 8 8	2 4 10	2 9 11	2 12 3	2 5 8	2 10 4
4	2 9 6	2 10 2	2 10 2	2 6 0	2 11 1	2 13 8	2 7 1	2 11 8
5	2 10 11	2 11 7	2 11 7	2 7 2	2 12 4	2 15 2	2 8 7	2 13 0
6	2 12 4	2 13 1	2 13 1	2 8 6	2 13 8	2 16 9	2 10 1	2 14 6
7	2 13 10	2 14 9	2 14 9	2 9 10	2 15 0	2 18 4	2 11 8	2 16 0
8	2 15 4	2 16 5	2 16 5	2 11 4	2 16 5	3 0 0	2 13 6	2 17 6
9	2 17 0	2 18 3	2 18 3	2 12 10	2 17 11	3 1 9	2 15 2	2 19 3
0	2 18 8	3 0 0	3 0 1	2 14 6	2 19 5	3 3 7	2 17 0	3 1 0
1	3 0 6	3 1 8	3 1 9	2 16 2	3 1 1	3 5 6	2 18 10	3 2 9
2	3 2 6	3 3 8	3 3 7	2 18 1	3 2 9	3 7 6	3 0 8	3 4 8
3	3 4 8	3 5 7	3 5 6	3 0 5	3 4 5	3 9 7	3 2 6	3 6 8
4	3 6 11	3 7 7	3 7 7	3 2 4	3 6 3	3 11 9	3 4 6	3 8 8
5	3 9 4	3 9 9	3 9 8	3 4 7	3 8 2	3 14 1	3 6 7	3 10 11
6	3 11 10	3 12 0	3 11 11	3 7 4	3 10 2	3 16 5	3 8 11	3 13 3
7	3 14 7	3 14 5	3 14 6	3 10 0	3 12 3	3 18 11	3 11 5	3 15 8
8	3 17 7	3 17 2	3 17 2	3 13 2	3 14 6	4 1 7	3 14 2	3 18 4
9	4 0 9	3 19 11	4 0 3	3 16 5	3 16 10	4 4 4	3 17 3	4 1 1
0	4 4 2	4 3 8	4 3 7	3 19 11	3 19 4	4 7 3	4 0 8	4 4 0
1	4 7 10	4 7 5	4 6 9	4 3 7	4 2 1	4 10 4	4 4 7	4 7 0
2	4 11 10	4 11 5	4 9 11	4 7 3	4 5 2	4 13 6	4 8 8	4 10 2
3	4 16 1	4 15 7	4 13 5	4 11 1	4 8 8	4 16 11	4 13 1	4 13 5
4	5 0 8	5 0 5	4 17 0	4 14 11	4 12 8	5 0 5	4 17 10	4 16 11
5	5 5 6	5 5 0	5 1 1	4 19 0	4 17 3	5 4 2	5 2 9	5 0 8
6	5 10 6	5 10 3	5 5 3	5 3 1	5 2 4	5 8 2	5 8 4	5 4 7
7	5 15 9	5 15 10	5 9 9	5 7 8	5 7 10	5 12 4	5 14 2	5 8 10
8	6 1 4	6 1 9	5 14 5	5 11 11	5 13 11	5 16 10	6 0 4	5 13 4
9	6 7 3	6 8 7	5 19 2	5 16 7	6 0 5	6 1 6	6 6 7	5 18 2
0	6 13 6	6 13 10	6 3 9	6 1 9	6 7 4	6 6 6	6 12 10	6 3 2

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, without Participation.

Ages.	Protestant Dissenters.			Provident.			Royal Naval, &c.			Scottish Union.			Union.			United Kingdom.			Victoria.			York and London.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	13	8	1	11	6	1	14	4	1	11	6	1	13	9	1	10	7	1	10	6		..	
17	1	14	5	1	12	6	1	14	11	1	12	5	1	14	7	1	11	5	1	11	2		..	
18	1	15	1	1	13	4	1	15	7	1	13	6	1	15	5	1	12	2	1	11	11		..	
19	1	15	10	1	14	2	1	16	3	1	14	7	1	16	4	1	13	0	1	12	9		..	
20	1	16	3	1	14	10	1	16	11	1	15	8	1	17	1	1	13	10	1	13	7	1	13	9
21	1	17	5	1	15	6	1	17	8	1	16	9	1	17	10	1	14	8	1	14	6	1	14	7
22	1	18	0	1	16	3	1	18	5	1	17	9	1	18	7	1	15	6	1	15	5	1	15	5
23	1	19	2	1	17	0	1	19	3	1	18	10	1	19	4	1	16	4	1	16	6	1	16	3
24	2	0	0	1	17	8	2	0	1	1	19	10	2	0	1	1	17	4	1	17	6	1	17	1
25	2	0	11	1	18	6	2	0	11	2	0	10	2	0	11	1	18	5	1	18	8	1	18	0
26	2	2	0	1	19	3	2	2	0	2	1	10	2	1	9	1	19	5	1	19	10	1	18	11
27	2	3	0	2	0	2	2	3	0	2	2	10	2	2	7	2	0	6	2	1	1	1	19	11
28	2	4	3	2	0	11	2	4	0	2	3	10	2	3	5	2	1	8	2	2	5	2	0	11
29	2	5	4	2	1	10	2	5	0	2	4	11	2	4	6	2	2	9	2	3	7	2	2	0
30	2	6	7	2	2	9	2	6	0	2	6	1	2	5	5	2	3	10	2	4	9	2	3	0
31	2	7	9	2	3	7	2	7	4	2	7	3	2	6	9	2	5	1	2	5	11	2	4	2
32	2	9	0	2	4	8	2	8	8	2	8	5	2	8	0	2	6	2	2	7	2	2	5	4
33	2	10	5	2	5	7	2	10	0	2	9	9	2	9	5	2	7	6	2	8	6	2	6	6
34	2	11	8	2	6	9	2	11	4	2	11	1	2	10	10	2	8	10	2	10	0	2	7	10
35	2	13	1	2	8	0	2	12	9	2	12	5	2	12	5	2	10	4	2	11	7	2	9	2
36	2	14	9	2	9	1	2	14	5	2	13	10	2	14	0	2	11	10	2	13	2	2	10	8
37	2	16	3	2	10	3	2	16	1	2	15	4	2	15	8	2	13	5	2	14	11	2	12	2
38	2	18	0	2	11	6	2	17	9	2	16	11	2	17	5	2	15	2	2	16	8	2	13	10
39	2	19	7	2	13	10	2	19	6	2	18	6	2	19	3	2	17	2	2	18	7	2	15	6
40	3	1	4	2	14	5	3	1	3	3	0	2	3	1	2	2	19	1	3	0	6	2	17	3
41	3	3	3	2	15	9	3	3	6	3	1	11	3	3	2	3	1	2	3	2	5	2	19	0
42	3	5	0	2	17	4	3	5	9	3	3	9	3	5	3	3	3	4	3	4	4	3	0	10
43	3	7	0	2	19	0	3	8	0	3	5	8	3	7	5	3	5	6	3	6	4	3	2	10
44	3	9	3	3	0	7	3	10	4	3	7	8	3	9	9	3	7	11	3	8	6	3	4	11
45	3	12	5	3	2	5	3	12	8	3	9	8	3	12	1	3	10	6	3	10	8	3	7	2
46	3	15	2	3	5	6	3	15	9	3	11	10	3	14	7	3	13	3	3	12	11	3	9	6
47	3	17	11	3	8	9	3	18	9	3	14	1	3	17	3	3	16	2	3	15	1	3	11	11
48	4	0	11	3	12	0	4	1	9	3	16	6	4	0	0	3	19	2	3	17	4	3	14	8
49	4	3	11	3	14	8	4	4	9	3	19	0	4	3	1	4	2	6	4	0	4	3	17	6
50	4	7	4	3	17	0	4	7	9	4	1	7	4	6	2	4	6	0	4	3	8	4	0	7
51	4	10	9	3	19	6	4	11	6	4	4	3	4	9	4	4	9	8	4	6	2	4	3	10
52	4	14	5	4	2	5	4	15	3	4	8	1	4	12	7	4	13	6	4	10	3	4	7	2
53	4	18	3	4	5	0	4	19	0	4	12	2	4	16	2	4	17	7	4	14	4	4	10	9
54	5	2	3	4	7	8	5	2	9	4	16	5	4	19	9	5	2	0	4	18	8	4	15	4
55	5	6	6	4	10	4	5	6	7	5	0	11	5	3	9	5	6	8	5	3	5	4	18	9
56	5	11	0	4	17	2	5	11	10	5	5	9	5	7	4	5	11	11	5	8	7	5	3	0
57	5	15	10	5	4	5	5	17	2	5	10	9	5	11	2	5	17	3	5	14	1	5	7	7
58	6	0	6	5	11	9	6	2	6	5	16	1	5	15	3	6	3	0	6	0	1	5	12	8
59	6	4	0	5	19	6	6	7	10	6	1	9	5	19	8	6	9	0	6	5	10	5	18	1
60	6	11	2	6	7	4	6	13	2	6	7	10	6	4	2	6	15	3	6	11	8	6	3	11

TABLE III. 1149

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

Ages.	Achilles.			Alfred.			Alliance.			Amicable.			Atlas.			Australian.			British Commercial.			British Empire.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
16	1	16	8	1	19	5	1	13	6	1	16	6	1	19	8	1	7	2	1	19	8	1	13	4
17	1	17	8	2	0	8	1	14	3	1	17	6	2	0	8	1	8	0	2	0	8	1	14	2
18	1	18	8	2	1	8	1	15	1	1	18	6	2	1	8	1	8	8	2	1	8	1	15	1
19	1	19	5	2	2	8	1	16	0	1	19	6	2	2	8	1	9	6	2	2	8	1	16	0
20	2	0	6	2	3	7	1	16	11	2	0	6	2	3	7	1	10	3	2	3	7	1	16	11
21	2	1	4	2	4	6	1	17	11	2	1	6	2	4	6	1	11	1	2	4	6	1	17	10
22	2	2	3	2	5	4	1	18	11	2	2	6	2	5	4	1	12	0	2	5	4	1	19	0
23	2	3	3	2	6	3	2	0	1	2	3	6	2	6	3	1	12	11	2	6	3	1	19	11
24	2	4	3	2	7	1	2	1	3	2	4	6	2	7	1	1	13	10	2	7	1	2	1	0
25	2	5	2	2	8	1	2	2	6	2	5	6	2	8	1	1	14	11	2	8	1	2	2	0
26	2	6	2	2	9	1	2	3	9	2	6	6	2	9	1	1	15	11	2	9	1	2	3	3
27	2	7	1	2	10	1	2	5	2	2	7	6	2	10	1	1	17	0	2	10	1	2	4	6
28	2	8	1	2	11	1	2	6	7	2	8	6	2	11	1	1	18	2	2	11	1	2	5	9
29	2	9	2	2	12	3	2	7	11	2	9	6	2	12	3	1	19	5	2	12	3	2	7	0
30	2	10	3	2	13	5	2	9	2	2	10	6	2	13	5	2	0	7	2	13	5	2	8	4
31	2	11	6	2	14	7	2	10	6	2	11	6	2	14	7	2	1	9	2	14	7	2	9	9
32	2	12	7	2	15	9	2	11	10	2	12	6	2	15	9	2	2	11	2	15	9	2	11	1
33	2	14	1	2	17	1	2	13	4	2	14	0	2	17	1	2	4	4	2	17	1	2	12	6
34	2	15	7	2	18	5	2	14	11	2	15	6	2	18	5	2	5	7	2	18	5	2	14	0
35	2	17	0	2	19	10	2	16	8	2	17	0	2	19	10	2	7	0	2	19	10	2	15	7
36	2	18	8	3	1	4	2	18	5	2	18	6	3	1	4	2	8	7	3	1	4	2	17	3
37	3	0	5	3	2	10	3	0	4	3	0	0	3	2	10	2	10	1	3	2	10	2	19	0
38	3	2	2	3	4	6	3	2	4	3	1	6	3	4	6	2	11	8	3	4	6	3	0	9
39	3	3	10	3	6	2	3	4	5	3	3	0	3	6	2	2	13	6	3	6	2	3	2	7
40	3	5	7	3	7	11	3	6	6	3	5	0	3	7	11	2	15	3	3	7	11	3	4	7
41	3	7	8	3	9	9	3	8	7	3	7	6	3	9	9	2	17	4	3	9	9	3	6	9
42	3	9	10	3	11	8	3	10	9	3	10	0	3	11	8	2	19	4	3	11	8	3	9	0
43	3	12	1	3	13	8	3	12	11	3	12	6	3	13	8	3	1	8	3	13	8	3	11	5
44	3	14	4	3	15	9	3	15	3	3	15	6	3	15	9	3	3	11	3	15	9	3	13	11
45	3	16	9	3	17	11	3	17	8	3	18	6	3	17	11	3	6	6	3	17	11	3	16	6
46	3	19	5	4	0	2	4	0	5	4	1	6	4	0	2	3	9	3	4	2	2	3	19	4
47	4	2	0	4	2	7	4	3	3	4	5	0	4	2	7	3	12	1	4	4	10	4	2	5
48	4	4	10	4	5	1	4	6	6	4	9	0	4	5	1	3	15	1	4	7	3	4	5	6
49	4	7	7	4	7	10	4	10	2	4	12	6	4	7	10	3	18	3	4	10	0	4	8	11
50	4	10	4	4	10	8	4	14	2	4	16	6	4	10	8	4	1	8	4	12	11	4	12	4
51	4	13	7	4	13	6	4	18	9	5	0	0	4	13	6	4	5	2	4	17	2	4	16	0
52	4	17	1	4	16	5	5	3	6	5	4	6	4	16	5	4	8	10	5	0	3	4	19	8
53	5	1	5	4	19	7	5	8	7	5	8	6	4	19	7	4	12	6	5	3	6	5	3	5
54	5	6	3	5	2	10	5	14	1	5	13	0	5	2	10	4	16	5	5	7	0	5	7	4
55	5	11	0	5	6	4	5	19	11	5	18	0	5	6	4	5	0	5	5	10	9	5	11	6
56	5	15	11	5	10	1	6	6	4	6	3	0	5	10	1	5	4	7	5	16	8	5	15	11
57	6	0	11	5	14	0	6	13	2	6	8	6	5	14	0	5	8	10	6	0	10	6	0	6
58	6	6	1	5	18	2	7	0	5	6	14	0	5	18	2	5	13	6	6	5	2	6	5	4
59	6	11	4	6	2	8	7	7	9	7	0	0	6	2	8	5	18	6	6	10	0	6	10	6
60	6	17	1	6	7	4	7	14	11	7	6	6	6	7	4	6	3	9	6	14	11	6	15	11

TABLE III.

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

Ages.	Caledonian.			Church of England.			City of Glasgow.			Clergy Mutual.			Clerical and Medical.			Crown.			Eagle.					
																			Male.			Female.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	16	5	1	14	5	1	15	4	1	11	8	1	16	10	1	16	7	1	18	8	1	12	8
17	1	17	0	1	15	1	1	16	5	1	12	6	1	17	9	1	17	5	1	19	9	1	13	4
18	1	17	9	1	15	10	1	17	7	1	13	4	1	18	8	1	18	3	2	0	9	1	13	11
19	1	18	7	1	16	7	1	18	6	1	14	2	1	19	7	1	19	1	2	1	8	1	14	7
20	1	19	5	1	17	4	1	19	5	1	15	0	2	0	6	1	19	11	2	2	5	1	15	1
21	2	0	3	1	18	1	2	0	6	1	16	0	2	1	5	2	0	10	2	3	4	1	15	10
22	2	1	2	1	18	11	2	1	4	1	17	0	2	2	4	2	1	9	2	3	10	1	16	6
23	2	2	2	1	19	9	2	2	3	1	18	0	2	3	3	2	2	9	2	4	4	1	17	3
24	2	3	2	2	0	7	2	3	5	1	19	0	2	4	2	2	3	9	2	4	10	1	18	0
25	2	4	2	2	1	6	2	4	4	2	0	2	2	5	2	2	4	10	2	5	6	1	18	9
26	2	5	3	2	2	6	2	5	3	2	1	4	2	6	2	2	5	10	2	6	2	1	19	7
27	2	6	5	2	3	6	2	6	5	2	2	6	2	7	2	2	6	11	2	7	0	2	0	5
28	2	7	7	2	4	7	2	7	5	2	3	10	2	8	2	2	8	1	2	7	10	2	1	4
29	2	8	9	2	5	8	2	8	6	2	5	0	2	9	3	2	9	2	2	8	10	2	2	3
30	2	9	10	2	6	10	2	9	9	2	6	4	2	10	4	2	10	4	2	9	10	2	3	2
31	2	10	11	2	8	1	2	10	11	2	7	6	2	11	6	2	11	6	2	10	11	2	4	2
32	2	12	1	2	9	6	2	12	2	2	8	8	2	12	8	2	12	9	2	12	0	2	5	3
33	2	13	5	2	10	10	2	13	5	2	10	0	2	13	11	2	14	0	2	13	3	2	6	4
34	2	14	9	2	12	4	2	14	10	2	11	6	2	15	2	2	15	4	2	14	7	2	7	5
35	2	16	1	2	13	11	2	16	3	2	13	0	2	16	6	2	16	9	2	16	0	2	8	7
36	2	17	8	2	15	8	2	17	9	2	14	8	2	17	10	2	18	2	2	17	6	2	9	9
37	2	19	2	2	17	5	2	19	4	2	16	6	2	19	3	2	19	10	2	19	1	2	11	0
38	3	0	9	2	19	4	3	1	0	2	18	4	3	0	8	3	1	2	3	0	9	2	12	3
39	3	2	6	3	1	4	3	2	8	3	0	2	3	2	2	3	2	10	3	2	6	2	13	7
40	3	4	2	3	3	6	3	4	6	3	2	2	3	3	8	3	4	7	3	4	4	2	15	0
41	3	5	11	3	5	9	3	6	4	3	4	0	3	5	4	3	6	5	3	6	3	2	16	6
42	3	7	8	3	8	1	3	8	5	3	6	0	3	7	0	3	8	4	3	8	4	2	18	0
43	3	9	5	3	10	8	3	10	4	3	8	0	3	9	0	3	10	6	3	10	8	2	19	9
44	3	11	4	3	13	4	3	12	6	3	10	0	3	11	0	3	12	8	3	13	0	3	1	6
45	3	13	4	3	16	3	3	14	8	3	12	4	3	13	0	3	15	0	3	15	8	3	3	4
46	3	15	7	3	19	3	3	17	1	3	14	10	3	15	6	3	17	6	3	18	6	3	5	5
47	3	17	11	4	2	6	3	19	8	3	17	6	3	18	0	4	0	1	4	1	7	3	7	7
48	4	0	7	4	5	11	4	2	6	4	0	4	4	1	0	4	2	11	4	5	0	3	9	10
49	4	3	7	4	9	6	4	5	1	4	3	8	4	4	0	4	5	10	4	8	7	3	12	4
50	4	7	0	4	13	4	4	8	3	4	7	4	4	7	3	4	8	11	4	12	4	3	15	0
51	4	10	5	4	17	5	4	11	1	4	11	4	4	10	6	4	12	1	4	16	4	3	17	9
52	4	14	3	5	1	9	4	14	2	4	15	8	4	14	0	4	15	3	5	0	5	4	1	0
53	4	18	6	5	6	4	4	17	4	5	0	2	4	17	6	4	18	6	5	4	8	4	4	4
54	5	2	10	5	11	3	5	0	8	5	5	0	5	1	3	5	1	11	5	8	11	4	7	11
55	5	7	8	5	16	5	5	4	2	5	10	4	5	5	0	5	5	7	5	13	0	4	11	8
56	5	12	8	6	1	11	5	8	2	5	16	0	5	9	0	5	9	6	5	17	10	4	15	9
57	5	18	1	6	7	9	5	12	3	6	2	2	5	13	0	5	13	6	6	2	10	5	0	0
58	6	4	0	6	13	11	5	16	6	6	8	6	5	17	6	5	18	0	6	7	10	5	4	6
59	6	9	10	7	0	6	6	1	2	6	15	0	6	2	0	6	2	4	6	12	7	5	9	6
60	6	15	7	7	7	6	6	6	1	7	1	6	6	7	2	6	7	2	6	18	2	5	14	7

TABLE III.   1151

ınual Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, with Participation.

	Economic.			Edinburgh.			English and Scottish Law.			Equitable.			European.			Family Endowment.			Freemasons.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
	1	11	5	1	13	11	1	16	2	1	19	8	1	14	5	1	14	6	1	15	2
	1	12	3	1	14	9	1	17	0	2	0	8	1	15	4	1	15	2	1	15	9
	1	13	0	1	15	7	1	17	10	2	1	8	1	16	2	1	16	1	1	16	5
	1	13	10	1	16	6	1	18	8	2	2	8	1	17	1	1	16	10	1	17	0
	1	14	7	1	17	4	1	19	6	2	3	7	1	18	1	1	17	9	1	17	9
	1	15	5	1	18	2	2	0	5	2	4	6	1	19	0	1	18	8	1	18	6
	1	16	3	1	19	1	2	1	4	2	5	4	1	19	11	1	19	9	1	19	4
	1	17	2	2	0	0	2	2	4	2	6	3	2	0	10	2	0	10	2	0	1
	1	18	1	2	1	0	2	3	5	2	7	1	2	1	10	2	1	11	2	1	1
	1	19	0	2	2	0	2	4	6	2	8	1	2	2	9	2	3	1	2	2	0
	2	0	0	2	3	0	2	5	6	2	9	1	2	3	9	2	4	3	2	3	0
	2	1	0	2	4	1	2	6	6	2	10	1	2	4	10	2	5	7	2	4	0
	2	2	0	2	5	3	2	7	7	2	11	1	2	5	10	2	6	10	2	5	1
	2	3	1	2	6	5	2	8	8	2	12	3	2	6	11	2	8	2	2	6	3
	2	4	3	2	7	7	2	9	9	2	13	5	2	8	1	2	9	7	2	7	5
	2	5	5	2	8	10	2	10	11	2	14	7	2	9	3	2	10	6	2	8	8
	2	6	8	2	10	2	2	12	0	2	15	9	2	10	6	2	12	0	2	9	11
	2	8	0	2	11	6	2	13	6	2	17	1	2	11	10	2	13	4	2	11	4
	2	9	5	2	13	0	2	15	0	2	18	5	2	13	2	2	14	11	2	12	5
	2	10	11	2	14	6	2	16	6	2	19	10	2	14	7	2	16	2	2	14	3
	2	12	6	2	16	1	2	18	6	3	1	4	2	16	0	2	18	2	2	15	10
	2	14	2	2	17	9	3	0	3	3	2	10	2	17	6	2	19	11	2	17	5
	2	15	11	2	19	6	3	2	3	3	4	6	2	19	1	3	1	11	2	19	2
	2	17	9	3	1	3	3	4	3	3	6	2	3	0	9	3	3	9	3	0	11
	2	19	9	3	3	2	3	6	6	3	7	11	3	2	6	3	5	9	3	2	10
	3	1	10	3	5	2	3	8	9	3	9	9	3	4	3	3	7	9	3	4	9
	3	4	1	3	7	3	3	10	9	3	11	8	3	6	3	3	9	9	3	6	10
	3	6	6	3	9	5	3	12	9	3	13	8	3	8	3	3	11	9	3	9	0
	3	9	0	3	11	9	3	15	3	3	15	9	3	10	5	3	14	0	3	11	5
	3	11	9	3	14	2	3	17	9	3	17	11	3	12	7	3	16	2	3	13	11
	3	14	7	3	16	9	3	19	0	4	0	2	3	15	0	3	18	10	3	16	7
	3	17	8	3	19	6	4	1	9	4	2	7	3	17	5	4	1	6	3	19	5
	4	0	11	4	2	6	4	4	6	4	5	1	4	0	0	4	4	7	4	2	6
	4	4	4	4	5	8	4	7	6	4	7	10	4	2	8	4	7	10	4	5	9
	4	8	0	4	9	0	4	10	9	4	10	8	4	5	6	4	10	6	4	9	3
	4	11	11	4	12	7	4	14	9	4	13	6	4	8	6	4	14	0	4	12	11
	4	16	1	4	16	5	4	19	0	4	16	5	4	11	7	4	17	0	4	16	10
	5	0	6	5	0	5	5	3	9	4	19	7	4	15	0	5	0	0	5	1	0
	5	5	3	5	4	7	5	8	9	5	2	10	4	18	7	5	3	6	5	5	1
	5	10	3	5	9	1	5	13	9	5	6	4	5	2	6	5	7	6	5	9	11
	5	15	7	5	13	10	5	19	3	5	10	1	5	6	8	5	11	0	5	14	11
	6	1	3	5	18	11	6	5	6	5	14	0	5	11	2	5	14	8	6	0	2
	6	7	4	6	4	3	6	11	9	5	18	2	5	15	8	5	18	11	6	5	8
	6	13	9	6	9	10	6	18	3	6	2	8	6	0	7	6	3	4	6	11	5
	7	0	7	6	15	8	7	4	6	6	7	4	6	5	8	6	7	11	6	17	4

TABLE III.

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

Ages.	Guardian.			Hand in Hand.			Hope.			Imperial.			Law.			Legal.			Licensed Victuallers.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	17	2	1	19	8	1	19	8	1	19	8	1	19	8	1	16	11	1	15	7
17	1	18	2	2	0	8	2	0	8	2	0	8	2	0	8	1	17	9	1	16	6
18	1	19	2	2	1	8	2	1	8	2	1	8	2	1	8	1	18	7	1	17	4
19	2	0	1	2	2	8	2	2	8	2	2	8	2	2	8	1	19	5	1	18	2
20	2	1	0	2	3	7	2	3	7	2	3	7	2	3	7	2	0	4	1	18	10
21	2	1	10	2	4	6	2	4	6	2	4	6	2	4	6	2	1	2	1	19	5
22	2	2	8	2	5	4	2	5	4	2	5	4	2	5	4	2	2	1	1	19	10
23	2	3	6	2	6	3	2	6	3	2	6	3	2	6	3	2	3	1	2	0	3
24	2	4	5	2	7	1	2	7	1	2	7	1	2	7	1	2	4	1	2	0	10
25	2	5	4	2	8	1	2	8	1	2	8	1	2	8	1	2	5	1	2	1	6
26	2	6	4	2	9	1	2	9	1	2	9	1	2	9	1	2	6	2	2	2	1
27	2	7	4	2	10	1	2	10	1	2	10	1	2	10	1	2	7	3	2	2	9
28	2	8	4	2	11	1	2	11	1	2	11	1	2	11	1	2	8	4	2	3	8
29	2	9	6	2	12	3	2	12	3	2	12	3	2	12	3	2	9	6	2	4	7
30	2	10	7	2	13	5	2	13	5	2	13	5	2	13	5	2	10	9	2	5	8
31	2	11	10	2	14	7	2	14	7	2	14	7	2	14	7	2	12	0	2	6	9
32	2	13	0	2	15	9	2	15	9	2	15	9	2	15	9	2	13	4	2	8	1
33	2	14	4	2	17	1	2	17	1	2	17	1	2	17	1	2	14	8	2	9	5
34	2	15	8	2	18	5	2	18	5	2	18	5	2	18	5	2	16	1	2	10	10
35	2	17	0	2	19	10	2	19	10	2	19	10	2	19	10	2	17	7	2	12	6
36	2	18	6	3	1	4	3	1	4	3	1	4	3	1	4	2	19	1	2	13	1
37	3	0	0	3	2	10	3	2	10	3	2	10	3	2	10	3	0	8	2	15	9
38	3	1	7	3	4	6	3	4	6	3	4	6	3	4	6	3	2	4	2	17	6
39	3	3	3	3	6	2	3	6	2	3	6	2	3	6	2	3	4	1	2	19	4
40	3	5	0	3	7	11	3	7	11	3	7	11	3	7	11	3	5	11	3	1	3
41	3	6	9	3	9	9	3	9	9	3	9	9	3	9	9	3	7	10	3	3	3
42	3	8	8	3	11	8	3	11	8	3	11	8	3	11	8	3	9	10	3	5	6
43	3	10	8	3	13	8	3	13	8	3	13	8	3	13	8	3	12	0	3	7	11
44	3	12	8	3	15	9	3	15	9	3	15	9	3	15	9	3	14	3	3	10	5
45	3	14	11	3	17	11	3	17	11	3	17	11	3	17	11	3	16	7	3	13	3
46	3	17	3	4	0	2	4	0	2	4	0	2	4	0	2	3	19	1	3	16	2
47	3	19	8	4	2	7	4	2	7	4	2	7	4	2	7	4	1	9	3	19	3
48	4	2	4	4	5	1	4	5	1	4	5	1	4	5	1	4	4	7	4	2	6
49	4	5	1	4	7	10	4	7	10	4	7	10	4	7	10	4	7	7	4	6	0
50	4	8	0	4	10	8	4	10	8	4	10	8	4	10	8	4	10	9	4	9	6
51	4	11	0	4	13	6	4	13	6	4	13	6	4	13	6	4	14	3	4	13	7
52	4	14	2	4	16	5	4	16	5	4	16	5	4	16	5	4	17	11	4	17	2
53	4	17	5	4	19	7	4	19	7	4	19	7	4	19	7	5	1	11	5	1	3
54	5	0	11	5	2	10	5	2	10	5	2	10	5	2	10	5	6	3	5	5	9
55	5	4	8	5	6	4	5	6	4	5	6	4	5	6	4	5	11	0	5	10	3
56	5	8	7	5	10	1	5	10	1	5	10	1	5	10	1	5	16	1	5	15	2
57	5	12	10	5	14	0	5	14	0	5	14	0	5	14	0	6	1	5	6	0	3
58	5	17	4	5	18	2	5	18	2	5	18	2	5	18	2	6	7	1	6	5	9
59	6	2	2	6	2	8	6	2	8	6	2	8	6	2	8	6	13	1	6	11	6
60	6	7	2	6	7	4	6	7	4	6	7	4	6	7	4	6	19	5	6	17	9

TABLE III. 1153

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

	London Association.			London Corporation.			London, Edinbro', and Dublin.			London and Westminster.			Medical Invalid.			Metropolitan.			Minerva.			Mutual.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
	..			2	0	3	1	14	0	1	15	10	1	12	8	1	16	5	1	17	2	1	15	0
	..			2	1	5	1	14	10	1	16	8	1	13	5	1	17	2	1	18	2	1	15	9
	..			2	2	5	1	15	9	1	17	6	1	14	2	1	17	11	1	19	2	1	16	5
	..			2	3	5	1	16	6	1	18	4	1	15	0	1	18	8	2	0	1	1	17	2
	..			2	4	3	1	17	4	1	19	1	1	15	11	1	19	6	2	1	0	1	18	0
	2	12	6	2	5	0	1	18	3	2	0	0	1	16	9	2	0	5	2	1	10	1	18	11
	2	13	0	2	5	8	1	19	4	2	1	0	1	17	9	2	1	3	2	2	8	1	19	11
	2	13	6	2	6	3	2	0	4	2	2	0	1	18	9	2	2	1	2	3	6	2	0	11
	2	14	0	2	6	10	2	1	5	2	3	0	1	19	10	2	3	0	2	4	5	2	1	11
	2	14	6	2	7	6	2	2	7	2	4	0	2	0	11	2	4	0	2	5	4	2	3	1
	2	15	0	2	8	2	2	3	10	2	5	0	2	2	0	2	5	1	2	6	4	2	4	2
	2	16	0	2	9	0	2	5	1	2	6	0	2	3	3	2	6	1	2	7	4	2	5	5
	2	17	0	2	9	11	2	6	4	2	7	0	2	4	6	2	7	3	2	8	4	2	6	8
	2	18	0	2	10	11	2	7	7	2	8	2	2	5	9	2	8	5	2	9	6	2	8	0
	2	19	0	2	11	11	2	8	10	2	9	6	2	6	10	2	9	9	2	10	7	2	9	5
	3	0	0	2	13	1	2	10	1	2	11	0	2	8	0	2	11	1	2	11	10	2	10	11
	3	1	6	2	14	3	2	11	4	2	12	6	2	9	4	2	12	7	2	13	0	2	12	5
	3	3	0	2	15	6	2	12	9	2	14	0	2	10	8	2	14	1	2	14	4	2	14	0
	3	4	6	2	16	11	2	14	3	2	15	8	2	12	1	2	15	8	2	15	8	2	15	8
	3	6	0	2	18	4	2	15	10	2	17	4	2	13	5	2	17	5	2	17	0	2	17	5
	3	7	6	2	19	11	2	17	6	2	19	0	2	15	2	2	19	1	2	18	6	2	19	4
	3	9	0	3	1	7	2	19	3	3	0	8	2	16	11	3	0	9	3	0	0	3	1	2
	3	11	0	3	3	3	3	1	1	3	2	6	2	18	8	3	2	7	3	1	7	3	3	3
	3	13	0	3	5	1	3	3	0	3	4	4	3	0	6	3	4	5	3	3	3	3	5	4
	3	15	0	3	7	0	3	5	0	3	6	3	3	2	5	3	6	4	3	5	0	3	7	6
	3	17	0	3	9	0	3	6	11	3	8	3	3	4	3	3	8	5	3	6	9	3	9	9
	3	19	0	3	11	2	3	8	11	3	10	6	3	6	2	3	10	9	3	8	8	3	11	8
	4	1	6	3	13	7	3	11	8	3	13	0	3	8	1	3	13	4	3	10	8	3	13	8
	4	4	0	3	16	1	3	13	2	3	15	9	3	10	3	3	16	2	3	12	8	3	15	9
	4	6	6	3	18	9	3	15	5	3	18	6	3	12	6	3	18	11	3	14	11	3	17	11
	4	9	6	4	1	9	3	17	11	4	1	2	3	14	10	4	1	3	3	17	3	4	0	2
	4	13	0	4	5	0	4	0	7	4	3	10	3	17	5	4	3	10	3	19	8	4	2	7
	4	16	6	4	8	6	4	3	7	4	6	4	4	0	2	4	6	5	4	2	4	4	5	1
	5	0	0	4	12	2	4	6	11	4	9	0	4	3	6	4	9	2	4	5	1	4	7	10
	5	4	0	4	16	1	4	10	7	4	12	0	4	7	0	4	12	0	4	8	0	4	10	8
	5	8	0	5	0	3	4	14	7	4	15	4	4	10	10	4	15	2	4	11	0	4	13	6
	5	12	0	5	4	6	4	18	11	4	18	9	4	14	11	4	18	4	4	14	2	4	16	5
	5	16	0	5	8	9	5	3	6	5	2	3	4	19	4	5	1	8	4	17	5	4	19	7
	6	0	0	5	13	3	5	8	5	5	5	9	5	4	0	5	5	2	5	0	11	5	2	10
	6	4	6	5	17	9	5	13	8	5	9	6	5	8	10	5	9	1	5	4	8	5	6	4
	6	9	0	6	2	6	5	19	4	5	16	0	5	14	7	5	13	4	5	8	7	5	10	1
	6	13	6	6	7	4	6	5	5	6	1	0	6	0	5	5	17	7	5	12	10	5	14	0
	6	18	0	6	12	5	6	11	10	6	5	7	6	6	6	6	1	11	5	17	4	5	18	2
	7	3	0	6	17	10	6	18	4	6	10	8	6	12	10	6	6	7	6	2	2	6	2	8
	7	8	0	7	3	8	7	4	8	6	15	10	6	19	0	6	11	6	6	7	2	6	7	4

TABLE III.

Annual Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, with Participation.

Ages.	National.			National Mercantile.			National Loan Fund.			National Provident.			North British.			North of Scotland.			Norwich Union.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	14	11	1	13	3	1	13	8	1	16	0	1	14	5		..		1	15	9
17	1	15	8	1	14	0	1	14	6	1	16	9	1	15	4		..		1	16	9
18	1	16	5	1	14	9	1	15	5	1	17	7	1	16	2		..		1	17	8
19	1	17	2	1	15	6	1	16	4	1	18	5	1	17	0		..		1	18	6
20	1	18	0	1	16	3	1	17	4	1	19	4	1	17	10		..		1	19	6
21	1	18	11	1	17	0	1	18	4	2	0	3	1	18	11		..		.2	0	6
22	1	19	10	1	17	9	1	19	4	2	1	2	1	19	10		..		2	1	3
23	2	0	10	1	18	6	2	0	5	2	2	2	2	0	11	2	0	7	2	2	0
24	2	1	11	1	19	6	2	1	7	2	3	2	2	1	11	2	1	0	2	2	9
25	2	3	0	2	0	6	2	2	9	2	4	3	2	3	2	2	1	5	2	3	8
26	2	4	2	2	1	6	2	4	0	2	5	4	2	4	3	2	2	1	2	4	8
27	2	5	5	2	2	3	2	5	3	2	6	6	2	5	8	2	2	9	2	5	8
28	2	6	8	2	3	0	2	6	6	2	7	8	2	7	0	2	3	11	2	6	8
29	2	8	0	2	4	3	2	7	10	2	8	11	2	8	5	2	4	9	2	7	9
30	2	9	5	2	5	6	2	9	3	2	10	2	2	9	5	2	5	8	2	8	10
31	2	10	10	2	6	9	2	10	7	2	11	6	2	10	9	2	6	8	2	10	0
32	2	12	5	2	8	0	2	12	0	2	12	11	2	12	2	2	7	11	2	11	1
33	2	14	0	2	9	6	2	13	6	2	14	4	2	13	6	2	8	10	2	12	3
34	2	15	8	2	11	0	2	15	0	2	15	10	2	15	2	2	10	1	2	13	6
35	2	17	5	2	12	9	2	16	6	2	17	5	2	16	9	2	11	5	2	14	10
36	2	19	3	2	14	6	2	18	1	2	19	0	2	18	5	2	12	10	2	16	3
37	3	1	2	2	16	3	2	19	9	3	0	9	3	0	2	2	14	4	2	17	6
38	3	3	3	2	18	0	3	1	6	3	2	6	3	2	0	2	15	11	2	19	0
39	3	5	3	3	0	0	3	3	4	3	4	4	3	4	1	2	17	7	3	0	6
40	3	7	5	3	2	0	3	5	3	3	6	3	3	6	1	2	19	5	3	2	0
41	3	9	9	3	4	0	3	7	3	3	8	4	3	7	11	3	1	2	3	3	6
42	3	12	3	3	6	0	3	9	5	3	10	5	3	9	11	3	3	4	3	5	2
43	3	14	10	3	8	0	3	11	10	3	12	7	3	12	0	3	5	10	3	7	0
44	3	17	7	3	10	0	3	14	4	3	14	11	3	14	4	3	7	11	3	9	0
45	4	0	7	3	12	0	3	17	0	3	17	4	3	16	7	3	10	5	3	11	0
46	4	3	9	3	14	6	3	19	10	3	19	10	3	19	1	3	13	4	3	13	8
47	4	7	1	3	17	0	4	2	11	4	2	5	4	1	11	3	16	4	3	16	3
48	4	10	8	3	19	6	4	6	2	4	5	2	4	4	10	3	19	9	3	19	6
49	4	14	6	4	2	6	4	9	8	4	8	0	4	8	3	4	3	3	4	2	9
50	4	18	7	4	5	6	4	13	6	4	11	1	4	11	11	4	7	1	4	6	0
51	5	2	11	4	8	6	4	17	7	4	14	3	4	15	5	4	11	1	4	9	8
52	5	7	6	4	11	6	5	2	0	4	17	7	4	18	11	4	15	2	4	13	3
53	5	12	5	4	14	6	5	6	9	5	1	1	5	2	9	4	19	4	4	17	0
54	5	17	6	4	17	6	5	11	10	5	4	9	5	6	9	5	3	6	5	1	0
55	6	2	10	5	1	0	5	17	2	5	8	8	5	11	2	5	7	11	5	5	3
56	6	8	8	5	5	0	6	2	9	5	12	9	5	15	10	5	12	5	5	9	6
57	6	14	9	5	9	6	6	8	7	5	17	1	6	0	9	5	17	1	5	13	6
58	7	1	2	5	14	6	6	14	10	6	1	9	6	5	11	6	1	11	5	17	6
59	7	7	11	6	0	0	7	1	5	6	6	7	6	11	1	6	7	1	6	2	6
60	7	14	11	6	5	6	7	8	4	6	11	10	6	16	2	6	12	9	6	7	3

TABLE III. 1155

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

Ages.	Palladium.			Pelican.			Promoter.			Protector.			Protestant Dissenters.			Provident Clerks'.			Reliance.			Rock.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	19	8	1	15	9	1	13	6	1	17	2	1	17	4	1	12	9	1	14	0	1	19	8
17	2	0	8	1	16	7	1	14	3	1	18	2	1	18	1	1	13	6	1	14	11	2	0	8
18	2	1	8	1	17	5	1	15	1	1	19	2	1	18	10	1	14	4	1	15	10	2	1	8
19	2	2	8	1	18	4	1	16	0	2	0	1	1	19	6	1	15	3	1	16	8	2	2	8
20	2	3	7	1	19	3	1	16	11	2	1	0	2	0	0	1	16	1	1	17	7	2	3	7
21	2	4	6	2	0	2	1	17	11	2	1	10	2	1	3	1	16	10	1	18	7	2	4	6
22	2	5	4	2	1	2	1	18	11	2	2	8	2	1	10	1	17	7	1	19	7	2	5	4
23	2	6	3	2	2	2	2	0	1	2	3	6	2	3	1	1	18	4	2	0	8	2	6	3
24	2	7	1	2	3	3	2	1	3	2	4	5	2	4	0	1	19	2	2	1	9	2	7	1
25	3	8	1	2	4	4	2	2	6	2	5	4	2	5	1	2	0	1	2	2	11	2	8	1
26	2	9	1	2	5	5	2	3	9	2	6	4	2	6	2	2	1	3	2	3	2	2	9	1
27	2	10	1	2	6	7	2	5	2	2	7	4	2	7	4	2	2	7	2	5	4	2	10	1
28	2	11	1	2	7	9	2	6	7	2	8	4	2	8	8	2	3	11	2	6	8	2	11	1
29	2	12	3	2	9	0	2	7	11	2	9	6	2	9	9	2	5	2	2	7	11	2	12	3
30	2	13	5	2	10	4	2	9	2	2	10	7	2	11	1	2	6	4	2	9	4	2	13	5
31	2	14	7	2	11	8	2	10	6	2	11	10	2	12	4	2	7	7	2	10	8	2	14	7
32	2	15	9	2	13	1	2	11	10	2	13	0	2	13	9	2	8	10	2	12	1	2	15	9
33	2	17	1	2	14	6	2	13	4	2	14	4	2	15	2	2	10	3	2	13	7	2	17	1
34	2	18	5	2	16	0	2	14	11	2	15	8	2	16	6	2	11	9	2	15	1	2	18	5
35	2	19	10	2	17	7	2	16	8	2	17	0	2	18	0	2	13	5	2	16	9	2	19	10
36	3	1	4	2	19	3	2	18	5	2	18	6	2	19	10	2	15	1	2	18	4	3	1	4
37	3	2	10	3	0	11	3	0	4	3	0	0	3	1	4	2	16	10	3	0	1	3	2	10
38	3	4	6	3	2	8	3	2	4	3	1	7	3	3	3	2	18	9	3	1	11	3	4	6
39	3	6	2	3	4	6	3	4	5	3	3	3	3	4	10	3	0	8	3	3	11	3	6	2
40	3	7	11	3	6	5	3	6	6	3	5	0	3	7	0	3	2	8	3	5	10	3	7	11
41	3	9	9	3	8	5	3	8	7	3	6	9	3	9	1	3	5	2	3	8	0	3	9	9
42	3	11	8	3	10	6	3	10	9	3	8	8	3	11	1	3	7	8	3	10	3	3	11	8
43	3	13	8	3	12	8	3	12	11	3	10	8	3	13	3	3	10	4	3	12	10	3	13	8
44	3	15	9	3	15	0	3	15	3	3	12	8	3	15	9	3	13	1	3	15	4	3	15	9
45	3	17	11	3	17	4	3	17	8	3	14	11	3	19	1	3	16	1	3	18	0	3	17	11
46	4	0	2	3	19	10	4	0	5	3	17	3	4	2	0	3	18	8	4	0	11	4	0	2
47	4	2	7	4	2	5	4	3	3	3	19	8	4	5	0	4	1	6	4	4	0	4	2	7
48	4	5	1	4	5	2	4	6	6	4	2	4	4	8	3	4	4	8	4	7	2	4	5	1
49	4	7	10	4	8	0	4	10	2	4	5	1	4	11	6	4	8	2	4	10	7	4	7	10
50	4	10	8	4	11	0	4	14	2	4	8	0	4	15	0	4	12	2	4	14	2	4	10	8
51	4	13	6	4	14	2	4	18	9	4	11	0	4	18	7	4	16	7	4	17	11	4	13	6
52	4	16	5	4	17	6	5	3	6	4	14	2	5	2	4	5	1	3	5	1	7	4	16	5
53	4	19	7	5	1	1	5	8	7	4	17	5	5	6	3	5	6	4	5	5	4	4	19	7
54	5	2	10	5	4	10	5	14	1	5	0	11	5	10	4	5	11	7	5	9	5	5	2	10
55	5	6	4	5	8	9	5	19	11	5	4	8	5	14	8	5	17	4	5	13	8	5	6	4
56	5	10	1	5	12	10	6	6	4	5	8	7	5	19	3	6	3	7	5	18	2	5	10	1
57	5	14	0	5	17	3	6	13	2	5	12	10	6	4	2	6	10	4	6	2	10	5	14	0
58	5	18	2	6	1	11	7	0	5	5	17	4	6	8	11	6	17	5	6	8	1	5	18	2
59	6	2	8	6	6	10	7	7	9	6	2	2	6	12	6	7	4	6	6	13	0	6	2	8
60	6	7	4	6	12	0	7	14	11	6	7	2	7	0	0	7	11	7	6	18	6	6	7	4

TABLE III.

Annual Premiums for Assuring the Sum of £100 for the Whole Term of a Single Life, with Participation.

Ages.	Royal Exchange.			Royal Naval, &c.			Scottish Union.			Scottish Widows' Fund.			Sun.			Union.			United Kingdom.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
16	1	19	9	2	0	7	1	13	11	1	17	6	1	13	6	1	19	8	1	15	1
17	2	0	9	2	1	2	1	15	0	1	18	6	1	14	3	2	0	8	1	15	11
18	2	1	9	2	1	10	1	16	1	1	19	7	1	15	1	2	1	8	1	16	10
19	2	2	9	2	2	6	1	17	3	2	0	7	1	16	0	2	2	8	1	17	9
20	2	3	6	2	3	2	1	18	5	2	1	6	1	16	11	2	3	7	1	18	8
21	2	4	6	2	3	11	1	19	7	2	2	5	1	17	11	2	4	6	1	19	5
22	2	5	3	2	4	8	2	0	9	2	3	3	1	18	11	2	5	4	2	0	3
23	2	6	3	2	5	6	2	1	11	2	4	1	2	0	1	2	6	3	2	1	2
24	2	7	0	2	6	4	2	3	1	2	4	11	2	1	3	2	7	1	2	2	0
25	2	8	0	2	7	2	2	4	3	2	5	10	2	2	6	2	8	1	2	2	11
26	2	9	0	2	8	3	2	5	4	2	6	10	2	3	9	2	9	1	2	3	11
27	2	10	0	2	9	3	2	6	5	2	7	10	2	5	2	2	10	1	2	4	11
28	2	11	0	2	10	3	2	7	7	2	8	11	2	6	7	2	11	1	2	5	11
29	2	12	3	2	11	3	2	8	9	2	10	0	2	7	11	2	12	3	2	7	1
30	2	13	3	2	12	3	2	9	11	2	11	1	2	9	2	2	13	5	2	8	2
31	2	14	6	2	13	7	2	11	2	2	12	3	2	10	6	2	14	7	2	9	4
32	2	15	9	2	14	11	2	12	6	2	13	6	2	11	10	2	15	9	2	10	7
33	2	17	0	2	16	3	2	13	10	2	14	9	2	13	4	2	17	1	2	11	11
34	2	18	6	2	17	7	2	15	3	2	16	1	2	14	11	2	18	5	2	13	3
35	2	19	9	2	19	0	2	16	9	2	17	6	2	16	8	2	19	10	2	14	8
36	3	1	3	3	0	8	2	18	3	2	19	0	2	18	5	3	1	4	2	16	2
37	3	2	9	3	2	5	2	19	10	3	0	6	3	0	4	3	2	10	2	17	10
38	3	4	6	3	4	2	3	1	6	3	2	3	3	2	4	3	4	6	2	19	6
39	3	6	3	3	5	11	3	3	3	3	3	9	3	4	5	3	6	2	3	1	5
40	3	8	0	3	7	8	3	5	0	3	5	6	3	6	6	3	7	11	3	3	4
41	3	9	9	3	9	11	3	6	10	3	7	5	3	8	7	3	9	9	3	5	4
42	3	11	9	3	12	3	3	8	9	3	9	3	3	10	9	3	11	8	3	7	6
43	3	13	9	3	14	7	3	10	10	3	11	3	3	12	11	3	13	8	3	9	9
44	3	15	9	3	16	11	3	12	11	3	13	4	3	15	3	3	15	9	3	12	2
45	3	18	0	3	19	3	3	15	1	3	15	6	3	17	8	3	17	11	3	14	9
46	4	0	3	4	2	3	3	17	5	3	17	9	4	0	5	4	0	2	3	17	10
47	4	2	6	4	5	3	3	19	10	4	0	3	4	3	3	4	2	7	4	0	10
48	4	5	0	4	8	4	4	2	4	4	2	9	4	6	6	4	5	1	4	3	11
49	4	7	9	4	11	5	4	5	0	4	5	6	4	10	2	4	7	10	4	7	3
50	4	10	9	4	14	6	4	7	9	4	8	4	4	14	2	4	10	8	4	10	7
51	4	13	6	4	18	3	..			4	11	2	4	18	9	4	13	6	4	14	5
52	4	16	6	5	2	0	..			4	14	2	5	3	6	4	16	5	4	18	3
53	4	19	6	5	5	10	..			4	17	4	5	8	7	4	19	7	5	2	2
54	5	2	9	5	9	8	..			5	0	8	5	14	1	5	2	10	5	6	5
55	5	6	3	5	13	6	..			5	4	2	5	19	11	5	6	4	5	10	10
56	5	10	0	5	18	10	..			5	7	11	6	6	4	5	10	1	5	15	11
57	5	14	0	6	4	2	..			5	11	11	6	13	2	5	14	0	6	1	0
58	5	18	3	6	9	6	..			5	16	1	7	0	5	5	18	2	6	6	5
59	6	2	9	6	14	11	..			6	0	7	7	7	9	6	2	8	6	11	11
60	6	7	3	7	0	4	..			6	5	4	7	14	11	6	7	4	6	17	9

TABLE III. 1157

Annual Premiums for Assuring the Sum of £100 for the whole Term of a Single Life, with Participation.

Ages.	Universal.			University.			Victoria.			West-minster.			West-minster and General.			West of England.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
16	1	15	9	1	17	9	1	13	6	1	19	8	1	17		1	15	9
17	1	16	5	1	18	8	1	14	3	2	0	8	1	18	7	1	16	8
18	1	17	2	1	19	7	1	15	1	2	1	8	1	19	7	1	17	6
19	1	17	11	2	0	7	1	16	0	2	2	8	2	0	7	1	18	6
20	1	18	8	2	1	5	1	16	11	2	3	7	2	1		1	19	3
21	1	19	6	2	2	4	1	17	11	2	4	6	2	2	7	2	0	0
22	2	0	5	2	3	1	1	18	11	2	5	4	2	3	6	2	0	10
23	2	1	4	2	4	0	2	0	1	2	6	3	2	4	4	2	1	3
24	2	2	3	2	4	9	2	1	3	2	7	1	2	5	2	2	2	6
25	2	3	3	2	5	9	2	2	6	2	8	1	2	6	0	2	3	3
26	2	4	4	2	6	8	2	3	9	2	9	0	2	6	11	2	4	0
27	2	5	6	2	7	7	2	5	2	2	10	0	2	7	10	2	5	0
28	2	6	7	2	8	7	2	6	7	2	11	1	2	8	6	2	6	0
29	2	7	8	2	9	8	2	7	11	2	12		2	9	6	2	7	0
30	2	8	10	2	10	9	2	9	2	2	13	4	2	10	7	2	8	0
31	2	9	11	2	11	11	2	10	6	2	14	6	2	11	8	2	9	0
32	2	11	0	2	13	0	2	11	10	2	15	9	2	12	9	2	10	3
33	2	12	3	2	14	3	2	13	4	2	17	1	2	13	11	2	11	6
34	2	13	7	2	15	6	2	14	11	2	18	5	2	15	2	2	12	9
35	2	14	11	2	16	11	2	16	8	2	19	10	2	16	5	2	13	10
36	2	16	5	2	18	4	2	18	5	3	1	4	2	17	10	2	15	3
37	2	18	0	2	19	9	3	0	4	3	2	10	2	19	5	2	16	8
38	2	19	7	3	1	4	3	2	4	3	4	6	3	1	0	2	18	0
39	3	1	3	3	2	11	3	4	5	3	6	2	3	2		2	19	6
40	3	3	0	3	4	7	3	6	6	3	7	11	3	4	6	3	1	3
41	3	4	9	3	6	4	3	8	7	3	9	9	3	6	6	3	2	10
42	3	6	6	3	8	1	3	10	9	3	11	8	3	8	6	3	4	6
43	3	8	3	3	10	0	3	12	11	3	13	8	3	10	6	3	6	4
44	3	10	2	3	12	0	3	15	3	3	15	9	3	12	6	3	8	3
45	3	12	2	3	14	1	3	17	8	3	17	11	3	15	1	3	10	3
46	3	14	5	3	16	2	4	0	2	4	0	2	3	17	6	3	12	2
47	3	16	9	3	18	6	4	2	7	4	2	7	4	0	6	3	14	6
48	3	19	4	4	1	4	4	5	2	4	5	1	4	3	6	3	17	9
49	4	2	3	4	4	4	4	8	4	4	7	10	4	6	7	4	0	3
50	4	5	6	4	7	6	4	11	10	4	10	10	4	9	11	4	8	6
51	4	9	1	4	10	9	4	15	6	4	13	6	4	13	6	4	6	6
52	4	12	10	4	14	1	4	19	5	4	16	5	4	16	5	4	9	6
53	4	16	11	4	17	8	5	3	9	4	19	7	4	19	7	4	12	9
54	5	1	2	5	1	4	5	8	6	5	2	10	5	2	10	4	16	9
55	5	5	10	5	5	4	5	13	9	5	6	4	5	6	4	5	1	4
56	5	10	10	5	9	7	5	18	5	5	10	1	5	10	1	5	4	6
57	5	16	2	5	14	0	6	3	5	5	14	0	5	14	0	5	9	0
58	6	1	10	5	18	2	6	8	9	5	18		5	18	2	5	13	10
59	6	7	7	6	2	8	6	14	0	6	2	8	6	2	8	5	18	0
60	6	13	2	6	7	4	6	19	0	6	7	4	6	7	4	6	5	0

TABLE IV.

Annual Premiums required for the Assurance of £100 for the Whole Term of Life; the Rate increasing, in each case, at the end of Five Years, Ten Years, Fifteen Years, and again at the end of Twenty Years; after which Period a fixed Annual Premium is payable during the Remainder of Life.

Ages.	Annual Premium payable during	Agricultural.	Britannia.	Eagle.		Economic.
				Male.	Female.	
		£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
20	First 5 years	1 4 5	1 1 4	1 12 0	1 8 5	1 6 0
	Second 5 years	1 8 9	1 5 10	1 17 4	1 11 8	1 9 10
	Third 5 years	1 12 7	1 10 11	2 0 9	1 14 8	1 13 7
	Fourth 5 years	1 16 8	1 16 9	2 4 9	1 18 4	1 17 10
	Remainder of Life	2 1 10	2 3 8	2 9 4	2 1 10	2 2 11
30	First 5 years	1 10 11	1 6 4	1 18 11	1 14 0	1 12 3
	Second 5 years	1 16 6	1 12 2	2 3 6	1 18 8	1 17 0
	Third 5 years	2 2 0	1 19 1	2 8 11	2 3 0	2 2 10
	Fourth 5 years	2 8 1	2 7 4	2 15 3	2 7 7	2 10 0
	Remainder of Life	2 16 6	2 17 6	3 3 2	2 13 7	2 18 3
40	First 5 years	2 2 4	1 16 1	2 7 7	2 2 4	2 0 11
	Second 5 years	2 9 1	2 4 4	2 14 10	2 7 4	2 9 5
	Third 5 years	2 18 3	2 14 6	3 5 7	2 13 9	3 0 2
	Fourth 5 years	3 10 5	3 7 3	3 17 10	3 3 2	3 12 8
	Remainder of Life	4 3 9	4 3 4	4 8 7	3 13 8	4 5 6
50	First 5 years	3 3 2	2 16 7	3 6 4	2 12 0	2 19 10
	Second 5 years	3 16 8	3 9 4	4 3 8	3 3 10	3 16 7
	Third 5 years	4 12 0	4 5 5	5 0 0	3 19 7	4 16 3
	Fourth 5 years	5 17 1	5 6 3	5 17 0	4 16 7	5 17 3
	Remainder of Life	6 13 10	6 13 7	6 14 3	5 12 0	6 16 1

Ages.	Annual Premium payable during	Family Endowment.	Freemasons.	Promoter.	Royal Naval and Military	United Kingdom.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
20	First 5 years	1 3 0	1 3 1	1 4 8	1 4 7	1 3 2
	Second 5 years	1 8 9	1 7 11	1 7 11	1 8 6	1 8 0
	Third 5 years	1 14 6	1 12 10	1 11 4	1 13 1	1 12 11
	Fourth 5 years	2 0 3	1 17 10	1 15 2	1 18 9	1 17 11
	Remainder of Life	2 3 0	2 2 7	2 1 10	2 11 8	2 2 9
30	First 5 years	1 10 0	1 10 7	1 11 4	1 12 0	1 10 8
	Second 5 years	1 17 6	1 17 2	1 15 2	1 17 6	1 17 3
	Third 5 years	2 5 0	2 3 8	1 19 8	2 4 5	2 3 10
	Fourth 5 years	2 12 6	2 10 3	2 6 4	2 15 0	2 10 5
	Remainder of Life	2 17 8	2 17 0	2 18 4	3 8 5	2 17 0
40	First 5 years	2 0 0	2 4 10	1 19 8	2 6 4	2 4 11
	Second 5 years	2 10 0	2 12 8	2 6 4	2 12 11	2 12 10
	Third 5 years	3 0 0	3 0 8	2 17 6	3 3 6	3 0 10
	Fourth 5 years	3 10 0	3 8 9	3 15 7	3 15 8	3 8 11
	Remainder of Life	4 3 10	3 16 3	4 13 3	4 15 11	3 16 10
50	First 5 years	3 10 0	3 13 5	2 17 6	3 15 1	3 13 5
	Second 5 years	3 18 0	4 1 5	3 15 7	4 1 4	4 1 9
	Third 5 years	4 8 0	4 10 0	4 17 2	4 11 10	4 10 1
	Fourth 5 years	5 0 0	4 18 4	5 19 5	5 4 6	4 18 5
	Remainder of Life	5 16 3	5 7 0	7 1 11	7 9 3	5 6 8

The following Offices also adopt an Increasing Scale of Premium:— London, Edinburgh, and Dublin; National Endowment; National Loan Fund; North British; North of Scotland; Scottish Union.

TABLE V. 1159

nnual Premiums required for the Assurance of £100 for the Whole Term of Life; the Rate increasing, in each case, at the end of Seven Years; and again increasing at the end of Fourteen Years; after which period a fixed Annual Premium is payable during the Remainder of Life.

	Annual Premium payable during	Alfred.			Argus.			Asylum.			Church of England.			City of Glasgow.			Edinburgh.			Protector.		
		£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
0	First 7 years	1	0	9	1	0	3	1	1	4	1	2	0	1	9	7	1	2	4	1	8	0
	Second 7 years	1	13	8	1	7	0	1	6	2	1	13	0	1	14	10	1	11	4	1	19	2
	Remainder of Life	2	6	7	2	0	6	2	4	7	2	4	0	2	14	10	2	4	9	2	10	3
0	First 7 years	1	8	7	1	6	6	1	8	7	1	8	0	1	17	4	1	9	2	1	14	0
	Second 7 years	2	5	3	1	15	4	1	15	1	2	2	0	2	4	6	2	0	10	2	9	3
	Remainder of Life	3	1	11	2	13	0	3	0	11	2	16	0	3	12	6	2	18	4	3	4	5
0	First 7 years	2	0	1	1	17	0	1	18	3	1	19	0	2	8	5	1	19	11	2	3	3
	Second 7 years	3	2	5	2	9	4	2	7	0	2	18	6	2	19	9	2	15	11	3	5	1
	Remainder of Life	4	4	9	3	14	0	4	9	8	3	18	0	5	0	8	3	19	11	4	6	11
0	First 7 years	3	0	9	2	17	3	2	11	11	3	0	2	..			2	19	3	3	2	2
	Second 7 years	4	10	9	4	5	11	4	0	11	4	10	3	..			4	3	0	4	12	6
	Remainder of Life	6	0	9	6	4	1	7	0	3	6	0	4	..			5	18	6	6	2	9

TABLE VI.

Annual Premiums required for the Assurance of £100 for the whole Term of Life; the Rate diminishing, in each case, at the expiration of every Fifth Year, until the Twentieth inclusive, after which period no further Payment is required.

Ages.	Annual Premium payable during	Argus.			Britannia.			Promoter.		
		£.	s.	d.	£.	s.	d.	£.	s.	d.
20	First 5 years	3	5	8	3	7	6	3	6	6
	Second 5 years	2	9	3	2	11	3	2	9	10
	Third 5 years	1	12	10	1	14	9	1	16	5
	Last 5 years	0	16	5	0	17	11	1	4	10
30	First 5 years	3	19	0	3	18	6	4	2	0
	Second 5 years	2	19	3	3	0	10	3	1	1
	Third 5 years	1	19	6	2	2	6	2	4	5
	Last 5 years	0	19	9	1	2	4	1	10	4
40	First 5 years	4	18	0	4	15	5	5	4	0
	Second 5 years	3	13	6	3	16	4	3	19	10
	Third 5 years	2	9	0	2	14	4	2	17	6
	Last 5 years	1	4	6	1	8	6	2	0	9
50	First 5 years	6	8	0	6	4	3	7	5	4
	Second 5 years	4	16	0	5	1	1	5	9	0
	Third 5 years	3	4	0	3	11	7	4	0	6
	Last 5 years	1	12	0	1	16	5	2	14	6

The following Offices also adopt a Decreasing Scale of Premium :—

National Endowment, North of Scotland, Royal Naval and Military, Scottish Union and United Kingdom.

A

COLLECTION OF LEGAL DECISIONS

CONNECTED WITH

LIFE ASSURANCES;

WITH SOME FEW REMARKS.

Ross v. Bradshaw, 1 Bl. 312.

An insurance was made on the life of Sir James Ross for one year from October 1759 to October 1760: the life was warranted in good health at the time of making the policy.

In an action on the policy it appeared that Sir James had received a wound in his loins at the battle of La Feldt in the year 1747, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fæces, and which was not mentioned to the insurer.

Sir James died of malignant fever within the time of the insurance. All the physicians and surgeons who were examined for the plaintiff swore that the wound had no sort of connection with the fever; that the want of retention was not a disorder shortening life; and that he might, notwithstanding, have lived to the ordinary age. The surgeons who opened him said that his intestines were all sound. For the defence, a physician' stated that the want of retention was paralytic; but, being asked to explain, said it was only a local palsy arising from the wound, but did not affect life. On the whole, however, the witness did not look upon the insured as a good life.

Per Lord Mansfield.—No question of fraud can exist in this case. When a man makes an insurance upon a life, generally, without any warranty of the state of the life insured, the insurers take all the risk, unless some fraud be committed by the person insuring, either by suppressing some circumstances which he knew, or by alleging what was false ; but if the insured knew no more than the insurer, the latter takes the risk. Wherever there is a warranty, it must, at all events, be proved that the party was a *good* life, which makes the question on a warranty *much larger than on fraud.* Here there was a warranty, and it is

proved there was no representation at all as to the state of the life, nor any question asked about it: nor was it necessary. Where an insurance is upon a representation, every material circumstance should be mentioned, such as age, way of life, &c. But where there is a warranty, then nothing need be told; 'but it must, in general, be proved, if litigated, that the life was in fact a good one; and so it may be, though he had a particular infirmity. The only question is, whether he was in a reasonable good state of health, and ' such a life as ought to be insured on common terms.'

The jury found for the plaintiff without going out of Court.

WILLIS r. POOLE.

An insurance was made on the life of Sir Simeon Stuart, from the 1st of April, 1779, to the 1st of April, 1780, and during the life of Eliza Edgely Ewer.

The policy contained a warranty that Sir Simeon was about 57 years of age, and in good health, when the policy was underwritten, and that Mrs. Ewer was about 78 years of age.

It appeared that, though Sir Simeon was troubled with spasms and cramps, from violent fits of the gout, he was in as good a state of health when that policy was underwritten as he had enjoyed for a long time before.

It was also proved by the broker who effected the policy that the insurers were told that Sir Simeon was subject to gout; and Dr. Heberden and other gentlemen of the faculty proved that spasms and convulsions were symptoms incidental to gout.

It appeared that Sir Simeon died within the period of insurance.

Per Lord Mansfield.—The imperfection of language is such that we have not words for every different idea; and the real intention of the parties must be found out by the subject-matter. By the present policy the life is warranted to some of the underwriters *in health;* to others, *in good health;* and yet there was no difference in point of fact. *Such a warranty can never mean that a man has not in him the seeds of some disorder.* We are all born with the seeds of mortality in us. A man subject to the gout is a life capable of being insured, if he has no sickness at the time to make it an unequal contract.

Verdict for the plaintiff.

STACKPOLE v. SIMON.

An insurance was effected on the life of a person of the name of Drury Sheppy, for one year from the 1st of April, 1777, to the 1st of April, 1778.

The interest of the plaintiff in the life was a debt of 900*l.* due from Sheppy.

It appeared on the trial that Sheppy had a situation in the Customs in Ireland, and went to the south of France for the benefit of his health, or to avoid his creditors, and there died within the time limited by the policy. The broker who effected the policy told the underwriters that the gentleman for whom he acted would not warrant anything; but, from the account he (the broker) had received, he believed the life to be a good one.

Lord Mansfield.—As to the interest, this policy may be considered as a collateral security for the debt due to the plaintiff. When there is no warranty, the underwriter runs the risk of its being a good life or not. If there be a concealment of any knowledge of the state of the life it is a fraud. It is a rule that every subsequent underwriter gives credit to the representation made to the first; and it is allowed that any subsequent underwriter may give in evidence a misrepresentation to the first, The broker here does not pretend to any knowledge of his own, but speaks from information. There is no fraud in him.

Verdict for the plaintiff.

The most remarkable feature in this case is, that it does not appear what the *information* was from which the broker spoke: if he had, in fact, received no information on the subject, his statement to the underwriters would have been a misrepresentation.

Dwyer *v.* Edie, Hilary, 1788.

By a memorandum at the foot of the policy, it was declared that it was intended to cover the sum of 5000*l.* due from James Russell (the party on whose life the insurance was effected) to the plaintiff, for which Russell had given his note, payable in one year, from the 14th of March, 1784.

Two objections were made on the part of the defendant:—

First, That part of the consideration of the note was money won at play.

Secondly, That Russell, when he gave the note, was an infant.

Mr. Justice Buller nonsuited the plaintiff on the ground that, as part of the consideration of the note was for a gaming transaction, there was a want of interest in the plaintiff.

But as to the objection of Russell's infancy, his lordship said the interest was contingent; for Russell might or might not have avoided the note; and his lordship doubted much whether, till so avoided, the note must not be taken, *as against a third person,* to be the note of a person of full age: and the maker of the note, only, could take the objection.

ANDERSON v. EDIE, K. B., 1795.

An insurance was effected on the life of Lord Newhaven, by the plaintiff, on the 1st of December, 1792; and, in an action on the policy, the only question raised was as to the plaintiff's interest.

It appeared that Lord Newhaven was indebted to the plaintiff and a Mr. Mitchell in a large sum of money, part of which debt had been assigned by them to another person : the remainder, being more than the amount of the sum insured, was, upon a settlement of accounts between the plaintiff and Mitchell, agreed by them to remain to the account of Mitchell.

Lord Kenyon was of opinion that this debt was a sufficient interest: he said it was singular that this question had never been directly decided before : a creditor had certainly an interest in the life of his debtor, because the means by which he was to be satisfied might materially depend upon it ; and that, at all events, the death must, in all cases, in some degree lessen the security.—Verdict for the plaintiff.

The above doctrine of Lord Kenyon has been thought too general. By the 3rd section of the Act 14 Geo. III., cap. 48, it is provided, ' that in all cases, where the insured hath an interest in such life or lives, event or events, *no greater sum shall be recovered or received from the insurer or insurers than the amount or value of the interest of the insured in such life or lives, or other event or events.*' It has been asked, in a case where the debt is amply secured, by mortgage or otherwise, what can be the ' *amount or value* ' of the creditor's interest in the life? Surely nothing that a jury could estimate!—*Vide* Marshall on Insurances.

GODSALL AND OTHERS v. BOLDERO, 9 East, 72.

The plaintiffs were coachmakers in Long Acre, and, on the 29th of November, 1803, effected an insurance with the Pelican Life Insurance Company on the life of the Right Honourable William Pitt, for 500*l.* for seven years, at an annual premium of 15*l.* 15*s.*

It appeared that Mr. Pitt, at the time of effecting the policy, and thence to the time of his death, was indebted to the plaintiffs in more than 500*l.*, and died insolvent. After his death, and before the commencement of the suit, Mr. Pitt's executors paid to the plaintiffs, out of the money granted by Parliament for the discharge of his debts, 1109*l.* 11*s.* 6*d.* in full for the debt due to them from Mr. Pitt.

The Court determined that the plaintiffs were not entitled to recover.

They held that this insurance, like every other to which the law gives effect, is, in its nature, a contract of *indemnity*, as distinguished from a wager. The interest which the plaintiffs had in the life of Mr. Pitt was that of creditors, where the probability of payment depended on the continuance of his life, and the indemnity sought by the insurance was against the loss which might result from his death.

The action was, therefore, founded on a supposed damnification of the plaintiffs, occasioned by his death, and *existing at the time of the action brought*. And, consequently, if, before the action brought, the damages occasioned by his death were prevented by payment of his debt, the ground of the action was taken away.

From the above case it is clear that there must not only be an interest in the life at the time of effecting the policy, but also a continuing interest to the time of the demand made upon the office, though most offices, we believe, are in the habit now of paying the amount without troubling themselves to ascertain or inquire about the amount of interest of the party claiming.—*Vide* Barber *v.* Morris, Post.

SIR WM. FORBES AND OTHERS *v.* THE EDINBURGH LIFE ASSURANCE COMPANY, March, 1830.

This was an action tried in the Jury Court at Edinburgh, and was brought to recover 3000*l.* sterling on a policy of assurance effected on the life of the Earl of Mar.

It appeared from the evidence on the part of the plaintiffs (pursuers as termed in the Scotch courts) that the Earl of Mar, who had been some years absent from Scotland, was, on his return, an early riser; was very tasteful in his gardens and plantations—paid particular attention to business—his memory was good—he spent much time in reading—and, in short, the witnesses were led to conclude he was in the enjoyment of perfectly good health.

His lordship, however, met with a disappointment on ascertaining the true state of his affairs at his father's death; subsequently he kept no company, sank gradually into deep melancholy, and, sometimes, so neglected himself as not to shave for a week or two. Lord Abercromby deposed to holding several conversations with the Earl of Mar: never saw him under the influence of ardent spirits or any stupifying drug; on the contrary, he was cool and collected, and Lord Abercromby attributed his retired habits and settled melancholy to his embarrassments.

The grounds of defence were threefold:—First, concealment of the fact that the earl used opium to a pernicious extent: Secondly, that it was untrue that Lord Mar was temperate and took exercise; whereas he was intemperate, and   entary, and inactive in the extreme: Thirdly, that it was untruly stated his lordship was in good health at the date of the policy, when, in point of fact, he was in unsound and broken health.

Witnesses were called to support the defence, but not to the satisfaction of the jury, who found in favour of the pursuers (plaintiffs).

LANAUZE *v.* BENT AND OTHERS, K. B., June, 1830,

Is a curious *case*, tried in the Court of King's Bench, London, but is *somewhat imperfectly reported.*

It seems that the plaintiff held bills of exchange to the amount of 3800*l.* accepted by J. Clark, Esq., the managing director of ' The European Company.' Several bills of a similar kind had previously passed through the plaintiff's hands, and had been regularly paid until the bills on which the present action was brought became due—these were dishonoured.

The plaintiff sought to make the other directors liable, on the ground that the bills were accepted for the benefit of the Company, and that the former bills had been paid out of the Company's effects; but not having satisfactory evidence of the latter circumstance, he was nonsuited.

MAYNARD v. RHODE AND OTHERS, K. B.

An action against the Pelican Office by the plaintiff, who had lent two sums of money to Colonel Lyon, secured by annuity and two policies of assurance.

The defence was, that on the first occasion, to the usual question, ' Who is your medical attendant?' Colonel Lyon replied, ' Mr. Guy, of Chichester; ' and stated that he was in good health. On the second occasion (14th of June), the colonel stated, ' I have not had occasion for medical advice since my last appearance at this office on the 23rd of May.' Whereas it would appear that the colonel was not in good health at the time of effecting the policies; and in the interval between the 16th of May, when the first policy was effected, and the 14th of June, the date of the second, during which time he had stated he had not occasion for medical advice, he was taking the most violent medicines, and had been repeatedly bled to relieve him from a determination of blood to the head. Mr. Guy had not seen the colonel for two or three years before the periods of effecting the policies. It was contended that, if these facts were proved, the colonel had not only concealed material facts from the office, but had also made gross misrepresentations; and he being in the matter of the policies the agent of the plaintiff, the latter must stand or fall by what the agent had done.

Witnesses were examined, and the jury found for the defendants.

EVANS v. COX AND OTHERS, K. B., February, 1831.

An action against the British Commercial Insurance Company, to recover 2500*l.* effected on the life of Ann Elsworthy.

Miss Elsworthy had been lady's-maid to the plaintiff, but had since commenced business as a dress-maker. It was alleged that the plaintiff had lent Miss Elsworthy 2500*l.* on her note of hand, besides making further advances. The plaintiff effected the present insurance, and one in the Globe for 700*l.* The objections were, that the plaintiff had no insurable interest; that, indeed, she had received more than 2500*l.* as executrix under Miss Elsworthy's will; the latter having insured her

own life to the amount of 3000*l.* in the Economic Office. Thirdly, that Miss Elsworthy was not in a good state of health when insured, and was addicted to dram-drinking.

Much conflicting evidence was adduced, as is not unfrequent in actions on policies of assurance. On the part of the defence, a surgeon proved that he had attended Miss Elsworthy, who was then ill of cholera morbus—it was in February after the policy was effected; she recovered in about a fortnight. A great number of witnesses spoke to Miss Elsworthy's habits, &c., with a view to make it appear she was addicted to drunkenness. The jury, however, found for the plaintiff.

The most remarkable circumstances in this case were—first, Lord Tenterden's remark, that the policy of assurance on which the action was brought contained a clause of warranty, which he did not recollect to have seen in the policies of any other office; that clause was a warranty, on the part of the plaintiff, that the person whose life was assured had led, and continued to lead, a temperate life. And, secondly, the astounding statement of the defendant's counsel, that the plaintiff (a lady of respectable family, and the widow of an officer) had insured her sister's life in the West of England for 2700*l.*, and in the Promoter for 2500*l.* Her father had effected an insurance on his own life, the amount of which descended to the plaintiff as one of his executors. The plaintiff also effected an insurance on her mother's life; and in the same year, when the two insurances for 5200*l.* were effected on her sister's life the plaintiff endeavoured to insure in six other offices. Such a mania for insurance was seldom met with. The plaintiff's father and sister died of cholera, as did Miss Elsworthy, and it was strongly suspected that the plaintiff's mother died of the same disease. The case, certainly, was not without suspicion.

In the Michaelmas Term following, a rule for a new trial was made absolute, Lord Tenterden observing that the case ought to be submitted to another jury; and as anything that fell from his lordship might have some effect on their minds, he would not make any remarks on the evidence. The rule would therefore be made absolute on payment of costs by the defendants.

Barber, Executrix, *v.* Morris, April, 1831.

The defendant had, in 1813, purchased an annuity of 100*l.* from the Rev. Mr. Hornby, for a sum of 700*l.*; the annuity to cease on payment of the 700*l.* after three months' notice.

For his own security, the defendant insured Mr. Hornby's life at the Pelican Insurance Office.

In 1824 Hornby gave notice that he meant to pay the 700*l.* at the end of three months from the date of the notice.

The defendant then caused the policy to be sold by auction, and it *was purchased by the plaintiff's* testator, an attorney, who gave 64*l.* for it.

The purchaser's widow, the plaintiff, brought the present action to recover back the purchase-money, on the ground that the policy, when sold, was worth nothing, or about to become worth nothing.

From the report, it does not appear very clearly why the plaintiff resorted to the action : for it seems that a witness, from the Pelican office, proved that the office was not in the habit of inquiring whether there was any continuing interest or not, but of paying when the event happened.

Lord Tenterden left it to the jury to say whether there was any misrepresentation or concealment on the part of the defendant at the time of the sale ; and the jury, being of opinion there was not, found for the defendant.

An application was made for a rule *nisi* for a new trial, on the ground that the defendant knew, at the time of sale, that the interest was about to cease, and, consequently, that the liability of the office was about to cease also, and there was no evidence that he communicated that circumstance to the purchaser, and this was a concealment. The witness from the office proved that they made no inquiry whether the interest continued or not, but paid on the event ; but it was contended they were not bound to do so, and that the practice was illegal.

By the Court. The purchaser, whether he made inquiries or not, meant to take his chance of payment by the office : and as the jury negatived any fraud or concealment, the defendant was not bound to refund the price.

The decision in ' Barber *v.* Morris ' is altogether a remarkable one. It is abundantly clear that, if the defendant Morris had continued to hold the policy, he could not, in point of law, after the decision in Mr. Pitt's case, have succeeded against the insurers ; and the assignment to Barber must, therefore, have been a mere nullity. The Court were of opinion that the purchase was speculative, Barber being content to run all risks : nothing of the kind, however, appears from the report as given in evidence.

HALFORD *v.* KYMER, 10 B. and C., 722. (1831).

By a policy of assurance, dated the 13th of February, 1826, the directors of the Asylum Life Insurance Company agreed with the plaintiff to insure the life of R. B. Halford, the son of the plaintiff, in the sum of 5000*l.* for the term of two years, and covenanted that, if the said R. B. Halford should die at any time within the term of two years, to be computed from the day of the date of the policy, the funds of the Company should be liable to pay, within eight calendar months, after proof of the death of the said R. B. Halford within the said term of two years, to the plaintiff, the sum of 5000*l.*

Plea, first, that at the time of making the policy the plaintiff was not interested in the life of the said R. B. Halford.

Secondly, that at the time of the death of the said R. B. Halford the laintiff was not interested in his life.

At the sittings after Easter Term, 1831, at Westminster, the action as tried before Lord Tenterden, and it appeared that,

By a settlement made on the marriage of the plaintiff, certain moneys ere settled, subject to trusts for the lives of the plaintiff and his wife, in ust for the children or child of the marriage, according to the appointent of the plaintiff and his wife; and in default of appointment, and there should be one child only, then in trust for such child, to become vested interest at 21 years.

There was only one child of the marriage, the said R. B. Halford; nd the marriage being dissolved by Act of Parliament, the plaintiff arried again, and effected the policy in question to provide against the eath of his son, R. B. Halford, before he attained 21.

The said R. B. Halford attained 21 on the 2nd of June, 1827; and n the 5th of January, 1828, made his will, and thereby gave all his eal and personal estate to his father, the plaintiff, appointing him sole ecutor, and died on the 11th of January, 1828.

The plaintiff, on the 17th July, 1828, proved his son's will in the rerogative Court of the Archbishop of Canterbury.

Lord Tenterden was of opinion that, the plaintiff not having any pecuiary interest in the life of his son at the time when he effected the olicy, the same was void by the Stat. of 14 Geo. III., cap. 48, sec. 3, nd he nonsuited the plaintiff, reserving liberty to him to move to enter a erdict, if the Court should be of opinion that he had an insurable terest.

F. Pollock moved accordingly, and contended, at great length, that a arty had an insurable interest in the life of his wife, child, or servant.

(During the argument, Bayley, Justice, quoted the case of ' Innes *v.* he Equitable Assurance Company,' tried before Lord Kenyon. Innes id effected a policy on the life of his daughter. In order to show that had an interest, he produced a paper, purporting to be a will, by hich it appeared that he was entitled to the sum of 1000*l.* in the event her dying under the age of 21 years. One Gardiner swore that he as a subscribing witness to the will, and that it was made at Glasgow, id that he was acquainted with the other subscribing witnesses: but other of those witnesses stated that it was not made at Glasgow, but a schoolmaster in the Borough. Innes was tried, convicted, and exeted for forgery; and Gardiner, who had sworn that the will was made Glasgow, was convicted of perjury.)

Lord Tenterden. I retain the opinion which I expressed at the trial, at the word interest in this statute means pecuniary interest.

Mr. Justice Bayley. It is enacted by the third section, ' that no eater sum shall be recovered than the amount of the value of the inrest of the insured in the life or lives.' Now what was the amount or 'ue of the interest of the party insuring in this case? Not one farthing

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certainly. It has been said, there are numerous instances in which a father has effected an insurance on the life of his son. If a father, wishing to give his son some property to dispose of, make an insurance on the son's life in the son's name, not for his (the father's) benefit, but for the benefit of the son, there is no law to prevent his doing so : but that is a transaction quite different from the present; and if a notion prevails that such an insurance as the one in question is valid, the sooner it is corrected the better.—Rule refused.

DUCKETT *v.* WILLIAMS, Exchequer, December, 1831.

An action by the Directors of the Provident Office against the Hope, to recover 5000*l*. effected on the life of John Stephenson.

The defence was, that the defendants had been imposed upon by the representation of Mr. Stephenson being in sound health at the time of the insurance, when he was, in fact, labouring under a dangerous disorder.

A great deal of evidence was given in this case; and, from the statement of the witnesses for the defence, it certainly did appear that Mr. Stephenson's bodily health was in a deplorable state.

The jury found for the defendant.

In the following Hilary Term a rule was made absolute for a new trial, on payment of costs, the plaintiffs limiting their recovery to the amount of premiums paid to the office.

In December, 1832, this action was again tried, and Lord Lyndhurst left it to the jury, whether they thought, from the evidence then given, combined with their inference of the grounds on which the former jury found their verdict, that Stephenson was affected with a disease tending to shorten life at the period the insurance was effected; and whether the plaintiffs knew, at that time, that he laboured under such disease.

The jury found that Stephenson was not, at the time of the insurance, labouring under a disease tending to shorten life.

Verdict for the plaintiffs for the amount of premiums.

In June, 1833, a rule was argued to enter a nonsuit, and in November following Lord Lyndhurst delivered judgment.

His lordship said it had been agreed upon the argument, that the Court should look at the whole of the evidence on both trials. The Court had so done, and were of opinion that the plaintiff was not entitled to a return of the premiums. It was contended that the stipulation in the policy that all facts should be ' truly stated' meant stated truly within the knowledge of the party interested in effecting the insurance. The court were not of that opinion ; but, even without that stipulation, the policy, if made upon an untrue statement, would be void, and the office could not be in a worse situation because such a stipulation was inserted in the policy. An untrue statement was not the less untrue because the party making it was ignorant of its untruth. The Court was

therefore, of opinion that the plaintiff was not entitled to recover, and that a nonsuit ought to be entered.

LEFEVRE v. BOYD, K. B., December, 1831.

An action to recover from the defendant, a tradesman in Newgate-street, 832l. 1s. 6d., paid to him on a policy of assurance effected under fraudulent circumstances.

It appeared that two persons (brothers), of the name of Edwards, had, for their own purposes, induced their half-sister, Miss Jane Lydia Simpson, to effect insurances on her life to a considerable amount in different insurance offices, and that on these occasions they (the Edwardses) were the referees, not stating, however, that they were her brothers. In answering the references, it appeared they used considerable art ; one of them, to the usual question of how long he had known the party answering, ' From her infancy ; ' and the other, ' For many years.' They stated, also, that Miss Simpson was in good health at the time of effecting the policy: but it appeared that she was then in a state of pregnancy by William Reid Edwards, her half-brother.

It was not sought to connect the defendant Boyd with the fraud further than by showing he had represented to the office that he took the asignment of the policy from Miss Simpson to secure a debt due from her, when, in fact, there was no such debt in existence ; the debt being, in truth, due from Henry Edwards, for whose benefit the policy had been originally effected.

Amongst other witnesses for the plaintiffs, Mrs. Bradbury was examined : she was a widow, residing in Clerkenwell, and stated as follows :—' I know Henry Edwards : whilst residing in Brunswick-square he practised as a surgeon. He brought Miss Simpson, his sister-in-law, to my house : she was in a state of pregnancy. Miss Simpson, at the request of her brother Henry, took her oath on the Bible that her brother William was the father of the child of which she was pregnant : Henry made her take that oath : she was delivered at my house. The child was ill. It was affected with ———, and died about two months after its birth. The mother was not ill to my knowledge beyond that usually attending a lying-in woman. I received 1l. a-week for board and lodging, and after the birth of the child 30s. Miss Simpson afterwards went to a school in the country : I believe in Berkshire.'

Letters from Miss Simpson to a schoolfellow, stating her ill state of health in the year 1828, were put in and read.

Dr. Paris. ' I am a physician. I have heard the evidence. I consider Miss Simpson could not have been in the state of health described by Edwards. I consider that the circumstances under which Miss Simpson had a child *were* likely to affect the duration of her life : but, *under ordinary circumstances*, I consider it would not be material to *mention the circumstance* of the party having had a child.

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Thomas Erskine Grant gave evidence to show a debt due from Henry Edwards to the defendant.

The defendant did not call witnesses.—Verdict for the plaintiffs.

KINNEAR v. BORRODAILE AND OTHERS, K. B., July, 1832.

An action by the executrix of Mr. Thomas Kinnear, of the firm of Kinnear and Company, of Mansion-house-street, to recover from the Directors of the Rock Office 2000*l*., effected by Mr. Kinnear on his own life.

The defendants, having pleaded that they were not liable, the insured having committed suicide, took upon themselves to begin, and to prove the affirmative of the issue.

Much evidence was given to make out the defendants' case : but it was not at all satisfactory; the testimony of the medical men was conflicting; and the jury, stopping Mr. Campbell in his address on behalf of the plaintiff, stated they were satisfied, and found a verdict for the plaintiff.

SWETE, Esq., v. FAIRLEE, Esq., Feb. 28, 1833.

The plaintiff, on the 31st of May, 1827, effected a policy in the Globe Assurance Office, by which that office undertook to insure the life of Thos. Abraham, Esq., for 5000*l*. The defendants signed the policy, which had been kept up by annual payments. The plaintiff was interested in the life of Mr. Abraham, and in April 1830, while the policy was in force, that gentleman died.

It appeared that the plaintiff on the 30th of April, 1827, contracted to purchase an estate dependent on the life of Mr. Abraham, and applied to the agent of the Globe Office at Exeter to effect an insurance for 5000*l*. Two temporary insurances for fourteen days each were made at Exeter, and in the mean time the usual forms were forwarded to Mr. Abraham in town; and, in reply to the question whether he was afflicted with ' gout, fits, asthma, or any other disorder tending to shorten human life,' he wrote as follows : — ' Neither—occasional indigestion only.'

Mr. Abraham appeared before the Directors at the office in London; he also referred to Mr. Vance, a surgeon, Mr. George Long, and Mr. Grindall. Mr. Vance wrote to the office as follows :—' I have known Mr. Abraham for the last three years; I have, on two or three occasions, given him a little advice for slight gastric disturbance, but I believe him to be a very healthy, strong man; and I am not acquainted with any personal imperfection, or with any habits of life which should induce me to give you any caution as to insuring his life at your office.' It appeared also that one of the Directors of the Globe wrote as follows:— ' I know Mr. Abraham very well, and should consider him quite an unexceptionable life.'

Several members of Mr. Abraham's family, several gentlemen of the Bar who had been his pupils, and others who knew him in practice, together with several attorneys who had professionally employed him, were called as witnesses on the part of the plaintiff, and stated that, with the exception of occasional attacks of bile and temporary depression of spirits, which they attributed to domestic circumstances, Mr. Abraham, though florid and robust, and sometimes exhibiting symptoms of determination of blood to the head, was, as far as they knew, in an excellent state of general health up to the fall of the year 1827; and they stated that, in their opinion, he was in good health, both of body and mind, at the time when the insurance was made, viz. the end of April in that year.

About the beginning of September in the same year he became ill, and was disordered in mind; but he went into Court during the ensuing term. It appeared, however, from the evidence of one of his sisters, that in 1823, in consequence of depression of spirits, he was attended by a medical man named Williams, who was in partnership with Dr. Burrows, and by his advice Dr. Burrows was called in. Dr. Burrows recommended that Mr. Abraham should be removed from business to an establishment of the Doctor's in the neighbourhood of London; but on the sister's objecting to this, and Dr. Sutherland, who also saw him, not considering it necessary, he only took lodgings at Hampstead, and came to town every day, and attended to his business. This, after some short time, restored him to health.

Mr. Vance, the surgeon, was also called as a witness, and gave his opinion of the good state of Mr. Abraham's health. He admitted, on his cross-examination, that, if he had known that Mr. Abraham in the year 1823 had been attended by Dr. Sutherland, Dr. Burrows, and others in that line of practice, he (the witness) should have thought it his duty to communicate the fact to the Office; but he added that in his opinion such a circumstance in 1823 would not prevent Mr. Abraham being an insurable life in 1827, he being then, in the witness's opinion, a recovered man.

Scarlett for the defendants.—There was a withholding of facts material to the risk. It appears, from the certificate of the surgeon at Ashburton, that he had attended Mr. Abraham for a year, and that his death was occasioned by apoplexy. Information should have been given to the Office of the illness of 1823. There is no doubt that he was thought a good life, and there is no fraud; but the non-communication of a fact important to the risk avoids the policy. The person who effects an insurance on another's life renders that other his agent, and is bound by his representations: 'Von Lindenau v. Desborough.' The last case is that of 'Duckett v. Williams,' tried in the Exchequer by Lord Lyndhurst in December 1831: it was an action by one Office against another. The policy was on the life of Mr. Stephenson, who appeared before the Directors. Lord Lyndhurst told the jury that, if

they were of opinion that the fact not mentioned was material to the risk, the defendants were entitled to the verdict, though the plaintiff, the other insurance Office, were quite ignorant of it. A motion was made in that case for a new trial, but a rule was refused. The jury inquired of Lord Lyndhurst if they were to be satisfied of concealment: His Lordship upon this introduced a very correct distinction: he said to the jury, 'You use the word *concealment*—I do not choose to use that word, as it may import a fraud; the mere non-communication of the facts, if you are of opinion that they were material, will avoid the policy.' In the present case Mr. Abraham, to whom I do not impute any fraud, says emphatically, ' occasional indigestion *only :*' this the healthiest man may have; and it is not, in fact, a disease at all : but he was subject to determination of blood to the head, and this is a very different thing, and ought to have been communicated. Determination of blood to the head and apoplexy are connected; and, as he had one fit so soon after the policy as August 1827, and eventually died of apoplexy, the determination of blood to the head was very material. The delusion, also, under which he laboured as to the supposed falling off of his business, and as to the conduct of the Bench and the Bar towards him, were very material. If these communications had been made, would not the Company have made further inquiries to see if it would not require a higher rate of premium? and if they would, then the policy is void.

On the part of the defendants, a person who had been clerk to Mr. Abraham was called, and deposed to facts which tended strongly to show decided insanity for several years; but on cross-examination his credit was very materially shaken.

Dr. Burrows was then examined, and produced a memorandum which he made respecting Mr. Abraham when he attended him in the year 1823; it contained the words ' florid complexion, prominent eye, confusion of ideas, &c.' He said that in his opinion what occurred then was material to be communicated to the Globe Office, because, though it was but an incipient state of insanity, yet it was attended with strong symptoms of determination of blood to the head, which would lead to the conclusion that, if the party did not actually go mad, his days would most likely be shortened by apoplexy.

Several other medical witnesses gave their opinion that the communication was material, taking the facts to be as Dr. Burrows had stated.

Campbell (Solicitor-General) in reply.—Mr. Abraham himself went before the Directors, and submitted himself to any inspection they thought proper. Mr. Vance also wrote the letter which has been read, and Mr. Boyce Combe, one of the Directors, another to the same purport. This case differs from ' Duckett *v.* Williams,' as, in that case, the person whose life was insured was dangerously ill at the time of effecting the policy; but in this case Mr. Abraham was in a perfect state of health.

Lord Denman.—It will be as well to clear our way as we go upon

this point. I believe the defence in ' Duckett *v.* Williams' took two grounds. One was the diseased state of Mr. Stephenson, and the other was the non-communication of material facts.

Campbell.—I am not aware of any case which decides that the mere non-communication of a fact by a party whose life is insured (being a stranger to the party effecting the insurance) will vitiate the policy. The Directors might have put any questions to Mr. Abraham when they had him before them; they had the means of information, which the plaintiff had not; and if they neglected to avail themselves of those means, the loss must fall upon them. But, if Mr. Abraham was, strictly speaking, the agent of the plaintiff, what was there that he knew that he has not communicated? He could not be aware that he had incipient insanity in 1823, though Dr. Burrows, from his superior means of knowledge, might have been aware of it; and it does not appear that Dr. Burrows ever communicated it to him, nor Dr. Sutherland, nor any other person. Therefore, supposing that he had incipient insanity in 1823, which I deny, he could not communicate it, because he did not know it. As to the form of the questions, some offices put them in the past tense, and inquire whether the party *ever had* the disorder, &c. ; but the form of this office is, ' *if afflicted* with gout,' &c. The only concealment or non-communication relied on is not that of Vance or Grindall, but of Abraham himself. To the referees there is a request that they will favour the directors with all the information in their power respecting the state of the party; but the question to the party is only ' if afflicted with gout, asthma, fits, or any other disorder which tends to shorten life :' that must mean at the time; and if so, where is the concealment? The clerk is not to be believed. If his statements are true, Mr. Abraham was in the years 1822, 1823, and 1824, in a state of perfect insanity; but there were sufficient causes, without insanity, to account for his anxiety. All the doctors that have been called had not seen him, but they gave their evidence upon Dr. Burrows's memorandum. He says there were ' florid complexion, prominent eye, confusion of ideas,' &c. Dr. Sutherland also was in Court, and was not called. The individual whose life is to be insured, not being a medical man, has to answer a different set of questions from those put to the referees. The doctors only say that they would have communicated these things : there is no evidence of what the communication was which Mr. Abraham made when he personally appeared before the Directors. Why did they not call their Actuary, or some person present? How can we tell that the necessary questions were not asked by the medical man who is always present on such occasions?

Lord Denman (in summing up).—The last argument cannot, in my opinion, be insisted on, viz. the supposed inquiry on the personal appearance of Mr. Abraham ; for it seems to me that the whole question *turns upon the* words—that, if there is any misrepresentation of the *age or state of health* of the party, it shall vitiate the policy. The ques-

tion therefore will be, whether Mr. Abraham made a misrepresentation when he answered to the question whether he was afflicted with gout, &c. —' Neither; occasional indigestion only.' We are not trying a question of insanity, but insanity is brought, by a roundabout course, to bear upon the question of physical malformation. It seems there was sufficient cause for depression of feeling without insanity, in the state of Mr. Abraham's domestic affairs. You have, in Dr. Burrows's evidence, the direct testimony of an eye-witness, and an opinion founded upon that, as to the materiality of the communication. The other medical men found their opinions upon what Dr. Burrows has stated; and if he is quite correct in his account, it would be very difficult to say that the facts were not material to be communicated. But Mr. Vance differs in opinion as to their materiality. You will therefore have to say whether the communication was or was not material. I confess that I entertained at first considerable doubts whether a third person, not having any interest in the immediate cause, could, by any misrepresentation, injure the party making the insurance. I will not give any opinion on that point here: it may very fitly be considered elsewhere. But it does not appear that Mr. Abraham was aware of the facts; and this will raise a very important question of law if you should think that there was a concealment of facts material to be communicated. And, therefore, the two questions which I shall leave to you will be—

First—Whether you think Mr. Abraham represented truly the state of his health according to the question put to him?

And secondly—If he did not, did he know the state of health in which he had been, so as to furnish a proper answer to the question?

The jury said they thought that Mr. Abraham was not aware of what had taken place, and could not, therefore, communicate it; and they found a verdict for the plaintiff.

It does not appear that this verdict has been disturbed.

WAINWRIGHT *v.* BLAND AND OTHERS, Exchequer, 1835.

This was an action brought by the executor under the will of Miss Helen Abercrombie, against the directors of the Imperial Office, to recover 3000*l.* insured on the life of the testatrix. This case (like that of Lefevre *v.* Boyd, and some others to be found in the present collection) is remarkable chiefly for the enormous fraud attempted to be committed upon the offices.

The case abounds in suspicion. Miss Abercrombie, a young lady having no expectancy, is induced to insure her life in sundry offices for *two years.* It appears that, in 1830, Miss Abercrombie effected insurances to the amount of 16,000*l.* for two years, and endeavoured to effect them to the extent of 14,000*l.* more, making all sorts of strange representations as to the reason for insuring for two years. The suspicions thrown upon this case are so horrible that we prefer quoting the Attorney-General's words in his address to the jury.

' She (Miss Abercrombie) died on the 21st of December; but before she died she assigned two of these policies, under very mysterious circumstances, to the plaintiff: the one on the 13th December, and the other on the 14th. It was evident that she was a mere puppet during the ten days previous to her death. She came to town from Turnham Green, on the 10th, in perfect health: she went to the play on the 14th in high spirits, yet, on the 21st, she was a corpse. The jury were not called upon to say what was the cause of her death; that would be a frightful issue to submit to them. The symptoms, though consistent with nature, were not inconsistent with poison—mineral poison only could be detected in the stomach—it was difficult to say by whom it was administered; yet, on Tuesday, Dr. Locock left her at 11, when she was much better. He returned at two, but in the interim Mrs. Wainwright administered some powder to her which the doctor did not prescribe. That fact was sworn to by the servant: that was the fatal cup. Shortly after she screamed, and continued in convulsions until her death. He (the Attorney-General) did not mean to say that Mrs. Wainwright knew that she administered to her poison. The jury might have read of the case of Miss Blandy, who poisoned her father, and, when he was writhing in agony, said, " I will administer a dose to you that will mitigate your pain;" at the same time she administered poison. Such was the case of Mrs. Wainwright, but he (the Attorney-General) hoped she did it unconsciously.'

It appeared that the plaintiff left the country in July, 1831, and had not since been seen here.

The jury being unable to come to a decision, a juror was withdrawn by consent.

In December, 1835, this case was again brought on for trial, the plaintiff having had the boldness to bring it on again, by giving a new notice, notwithstanding the discouragement he met with on the first occasion.

Much evidence was gone into on the second trial, and there was nothing warranting an inference that Miss Abercrombie died from other than natural causes; indeed, the Attorney-General for the defendants confined himself entirely to two points: that Miss Abercrombie and Mrs. Wainwright had made false statements at the insurance office; and that Miss Abercrombie had no interest in the policy, which was, in truth, effected for the benefit of the plaintiff Wainwright.

Lord Abinger said, The case was pregnant with suspicion. It was unnecessary to consider for a moment whether murder had been committed (supposing that question had been raised), because that would not prevent her executors from recovering, provided that the insurance had been effected *bonâ fide* on her behalf. His lordship directed the attention of the jury to the extraordinary fact of the young lady having effected the insurances for only two years, and reminded them that not

a tittle of proof had been adduced to substantiate the reasons she had given at the offices for so doing. By the assignments and wills made by Miss Abercrombie, Mrs. Wainwright was placed in a situation in which the law would not allow any person to stand, namely, that of having an interest in procuring the death of a fellow-creature by lawful means. His lordship concluded with requesting the jury to state their reasons for their verdict when they delivered it.

The jury almost immediately returned a verdict for the defendants, on the ground of misrepresentation, and of Miss Abercrombie having no real interest in the assurance.

An application was made for a new trial, but refused.

CHATTOCK v. SHAWE, Exchequer, July, 1835.   Col. Greswolde's case.

The plaintiff in this action was a solicitor, and the trustee of certain property in which Colonel Greswolde (formerly Captain Wigley) had a life estate, to which he had succeeded on the death of Henry Greswolde Lewis, Esq., then taking the name of Greswolde. The Right Hon. Henry Hobhouse had agreed to lend the colonel a large sum of money, to be secured on annuities granted by the colonel, accompanied by insurances on his life, and, amongst other offices, a sum of 5000*l*. was agreed to be effected with the Eagle Insurance Company, and Mr. Hobhouse signed the usual declaration. For reasons totally unconnected with the insurances, but arising from some difference of opinion as to the deeds to be executed by Colonel Greswolde, Mr. Hobhouse declined making the advance, and the plaintiff subsequently agreed to do so: Mr. Hobhouse wrote a consent to the directors of the Eagle Office for their granting the policy to the plaintiff, which was done on the plaintiff signing a fresh declaration, and paying an additional premium of 14*l*. 11*s*. 8*d*. for increased risk on military service in Ireland.

The declaration was to the effect that the age of the colonel did not exceed 33, that he was in a sound state of health, and had not been afflicted with, nor was subject to, gout, vertigo, fits, hemorrhage, &c., nor accustomed to any intemperate habits which tend to shorten life.

The defence was, misrepresentation as to the colonel's state of health, he having, as stated by the defendant's counsel, had fits, and being also of intemperate habits.

It was proved, beyond doubt, that the colonel had suffered from epileptic fits, followed by delirium, occasioned by a fall ; and a mass of conflicting testimony was brought forward as to his habits of life, which (if a tithe of what was stated by the witnesses for the defence were true) were anything but temperate.

Lord Abinger said, the plaintiff had offered a great deal of evidence to negative the assumption that the colonel, before the policy, had been afflicted with, or was subject to, fits, and that he was accustomed to in-

:mperate habits ; and, if uncontradicted, it would have been conclusive : ae evidence for the defendants did not rest upon the testimony of a few eople, but was supported by so large a number that it was difficult to iscredit it.   His lordship left it to the jury to say whether they were atisfied that Colonel Greswolde had been afflicted with, and subject to, ts before the policy, or whether he was accustomed to intemperate abits : if they were so satisfied, they would find for the defendant; if ot, they would find for the plaintiff.

The jury deliberated nearly five hours, and then found a verdict for ae plaintiff, damages 5000*l.*

It may be deserving of remark, that, in his address on behalf of the efendant, the Attorney-General said, ' The colonel was the agent of the ssured : that was a point much disputed, but lately set at rest by the ase of " Everett *v.* Desborough," that the person whose life is insured i the agent of the insured : and, therefore, every concealment by the alonel would vitiate the policy.'

In January, 1836, an application was made for a new trial, on the round that the jury had decided against evidence.   In support of his ale, the Attorney-General said, ' The witnesses who deposed to the in-mperate habits of Colonel Greswolde were persons who could not be iistaken.   They swore that he was in the habit of drinking a bottle of herry and eight bottoms of brandy every morning before breakfast ; aat he used to drink three quarts of strong ale at breakfast and in the iiddle of the day ; that he used to be the last man who left the mess, ad when he returned from it he drank sherry until he was so drunk aat he could not go to bed without assistance.'

It is difficult to imagine such a state of things, but it is much more i to make a jury believe it.   Colonel Greswolde's case was, to say the aast of it, suspicious ; but we cannot help thinking the defence was too ighly coloured, and to that may be perhaps attributed its failure.

The Chief Baron, in delivering judgment after the rule had been rgued, expressed himself by no means satisfied with the verdict.   His ordship said, ' If I had been on the jury, I would have decided for ae defendant.   However, it does not follow that, because my impres-ion is so, the Court should overturn the verdict of the jury.'   His Lord-hip then proceeded to say, that, if the case were as had been stated by ae Counsel for the defendant, one where the evidence was all on one .de, a new trial might have been granted ; but the Court did not view ae evidence in that light.   As there was another action to be tried gainst another office, the Court would not detail the reasons which ifluenced their present decision, but would merely state it was one for jury to decide upon, and that the verdict ought not to be disturbed.

(K.B.)   The case alluded to by Lord Abinger was that of Lord teorge Lennox against Desborough and others, Directors of the Atlas ssurance *Company, to recover* 2000*l.* on a policy effected on the life *Colonel Greswolde.*   The cause was tried in Dec. 1836, and the jury

found for the plaintiff on all the issues except the second, the most important, namely, whether the colonel had or not been subject to fits prior to the date of the policy.

Upon this finding the Court were of opinion that a verdict ought to be entered generally for the defendants, the other issues being, after such finding, immaterial.

In February 1837 the Court granted a rule to show cause why the verdict should not be entered for the plaintiff on the second as well as the other issues.

The case of the Northern Reversionary Company against the Asylum Assurance Company embraced only the simple question whether the life insured, the Hon. George Talbot, brother of the Earl of Shrewsbury, was of temperate habits when the policy was effected. The jury found he was not, and we think there was abundant evidence to justify their verdict.

In that of the Eagle against the Atlas, on the assurance of Cochran's life, we do not so clearly perceive the jury's reason for finding for the plaintiffs. It seems to us there was gross misrepresentation made as to Cochran's habits: he was, as Lord Denman truly said, ' One of the most wretched young men he had ever heard described.' We give a brief outline of the case.

RAWLINGS v. DESBOROUGH, Queen's Bench, Dec. 1837.

This important case took up three days, and the result was a verdict for the plaintiffs. It was an action brought by the Eagle Office against the Atlas, to recover a sum of 4000*l.* effected on the life of Mr. John Cochran. This unhappy young man, who was born to a good expectancy, and, in fact, succeeded to personal property of a large amount in value, had contracted habits of intemperance to a lamentable extent; and the evidence adduced on the part of the defendants detailed such a scene of profligacy and low associations as sufficiently to justify Lord Denman in his remarks.

' He ' (Cochran), observed his lordship, ' certainly does appear to have been one of the most wretched young men one ever has heard described: well born, without a single decent habit: well connected, without one respectable companion: the young son of a widowed mother, without any appearance of feeling or affection.'

One of the plaintiff's witnesses stated, unhesitatingly, that Cochran would drink sherry and water, brandy and water, ale, rum, shrub, gin and peppermint, it did not matter what.

The witness (who was Mr. Cochran's groom) added, ' We generally dined with him and took wine together: he could not smoke, so we took our cigars, and he his wine.'

We cannot give, here, a twentieth part of the voluminous evidence taken on the trial of this cause;—that on the part of the defendants, as we conceive, made out a strong case of intemperate habits and of misrepresentation with regard to the health of Cochran. Notwithstanding that, however, the jury appeared to take a different view of the case, and, after retiring for an hour and a quarter, returned a verdict for the plaintiffs on all the issues.

PALMER AND ANOTHER, EXECUTORS, *v.* THE CHAIRMAN OF THE ALLIANCE COMPANY. Tried at Norwich, July, 1841.

The action was brought by the executors of Thomas Wilcock Howes, to recover the sum of 1500*l.* insured on the life of the deceased;—the Company disputing their right to pay the amount of the policy, and urging that Howes was afflicted with consumption, and that his habits were such as to be prejudicial to the duration of life.

The report of this case is so voluminous that we cannot go very much into detail, but will endeavour to select the most important parts of the evidence.

A great number of witnesses were called for the plaintiffs, who deposed, generally, to the fact of the deceased being an insurable life, including four gentlemen of the faculty; and the effect of their statement was to show that the deceased at the time of the insurance was not labouring under consumption : there was also much evidence in regard to the mode of life and habits of the deceased, which were said to be temperate.

On the part of the defendants, Mr. Bell, a surgeon at Hull, was examined, and stated he had attended Howes, the insured, for an affection on the lungs. At the conclusion of his examination in chief, the witness stated, ' I saw him in September, 1839, but not professionally ; he appeared much the same : he was in a weak condition, as if he had been living intemperately ; his eyelids were red as before. I told him that I believed he had his mother's complaint, and told him to be particularly careful or he would die.'

Mr. Sherwin, a surgeon also of Hull, stated that the appearance of the insured was emaciated and unhealthy; he appeared excited and forlorn, approaching delirium tremens : his appearance was scrofulous decidedly.

Mr. West, a surgeon at Hull, attended Mrs. Benson (the mother of the insured) for confirmed consumption in January, 1840—attended the insured on the 1st of April, 1840 : it was for consumption—told him he was in a delicate state of health, and that if he did not take great care of himself he would not be here long.

The Judge.—I shall leave it to the jury that this is fraudulent, because *it is clear* that the insured has been attended by two persons

within the last year.   Here is a representation, upon the basis of which the insurance is made, that he has never been attended by a medical man.

Mr. Thesiger.—Does your Lordship think that is a question which arises upon this record ?

The Judge.—I think it arises upon the 7th plea, because it alleges that the insurance was made by fraud and misrepresentation by himself and others.   Now I think that the representation that he had never had a medical attendant is sufficient, because it is palpable if he had said that he had had this medical attendance, and the Office had referred, it would have never accepted the insurance.   Independently of all the contradictory evidence, this is a point which puts an end to the whole cause—that is, if it is believed.   Can any man say that is not a fraudulent thing towards the Office ?

Mr. Thesiger.—This plea, my Lord, seems clearly to point to a case of conspiracy.

The Judge.—I put it thus, and I shall tell the jury so, and you can move as for a misdirection if I am wrong.   But can you contradict the fact of his having consulted these two gentlemen ?

Mr. Thesiger.—No, my Lord.

The Judge.—Then I think it makes an end of the case.

Mr. Thesiger.—There was a case in which I was concerned, ' Lord George Lennox against the Atlas Company ;' but there it was pleaded that the Company had not been referred to the usual medical attendant.

The Judge.—I quite agree with that ; but this plea is that by the fraud and covin ' of himself and others.'   I think the fraud and covin of himself sufficient ; I say nothing about the others.   He must have known that he had had a medical attendant : that is sufficient, and I shall so leave it to the jury.

Mr. Thesiger.—The question is, what is the meaning of the term ' medical attendant ? '   The representation is that he never had a medical attendant ;—does it mean consulting a person, or seeing him on one occasion ?

The Judge.—One of these persons attended him eight or ten days ; but it is a question for the jury whether he had medical attendance or not.   Certainly, if a person attends him and prescribes for him, he must be considered as a medical attendant.   Would anybody in the ordinary transactions of life not feel that an office ought to have had that information ?   Can any human being doubt about such a thing as that ?

Mr. Thesiger.—It is distinctly and entirely from the question urged here.

The Judge.—It is a representation, and a representation fraudulent only, if it be within his own knowledge : the difficulty does not arise in this case as it does in some others, because a man must know what happens to himself.   It is not a fraudulent representation with

espect to the plaintiffs, because they might not know it; it might not
e a fraudulent representation on the part of any person who took it
om the life insured, but it is a fraudulent representation if made by
imself. I will ask Mr. Justice Williams if he agrees with me on the
construction of the plea.

His Lordship retired for a short time. On his return he said, ' I
id no doubt before, and I am now confirmed by the opinion of my
other Williams. Discharge the jury from the other issues, and let
em find a verdict on this :

To the jury—' Gentlemen, you will find a verdict on the seventh
sue, and you will be discharged from finding any verdict on the other
sues ; that is to say, you will find that the policy was effected by the
aud, covin, and misrepresentation of Howes.'

Verdict accordingly.

Borrodaile *v.* Hunter and others, Com. Pleas, Dec. 1841.

This action was brought to recover the sum of 1000*l.* on a policy
fected by the Reverend William Borrodaile on his own life, in the
ondon Life Association.

The defence in this case was, that the insured died by his own hand,
contravention of the stipulation in the policy. It was contended also
n the part of the defendants, first, that there was nothing to show aber-
ation of intellect on the part of the insured; and secondly, if there
ere, the simple fact of the party dying by his own hand would vitiate
se policy.

It was shown that, on Friday the 16th day of February, 1838, the
ssured was seen to deposit his hat and cloak in one of the alcoves of
Vauxhall Bridge; to cross to the Battersea side and climb over the
arapet; and, having gradually crept along to where the water was deep-
st, threw himself into the river and was drowned.

It was shown that the unfortunate gentleman, until within a short time
f his death, was a man of remarkable energy and activity, cheerful in
isposition, pious, exemplary in his dealings, and affable in manner
nd address. Unfortunately he had become surety for one Foster, the
ax-collector of Wandsworth, who, in November 1837 made default,
nd from that time the assured was observed to be an altered man. He
ppeared to labour under great depression; was subject to fits of ab-
ence; lost his appetite, and, apparently in some degree, his memory;
poke little, and did not like to be left alone. He would stay up late at
ight, instead of going to bed about eleven as was his usual custom;
ould observe he could not bear to go to bed; if he did, he could not
eep, and even if he did sleep it was still worse. He appeared to feel
itterly his embarrassment through Foster, and once observed to that
erson's wife, ' Oh, Mrs. Foster, I am in such trouble, that I know not
metimes where I am going or what I am doing.'

This unhappy gentleman, as is common in cases of the kind, had a presentiment of what might happen, and therefore begged that his brother-in-law would accompany him to London, observing he did not know what he might do if left alone.   He became remiss in the exercise of family prayer, in which he had been before most regular; and latterly he abstained from it altogether.   He, however, continued to perform his other duties.

Being Vicar of Wandsworth, he performed the duty at his parish church on the Sunday preceding his death ; he read the service on the Wednesday following, and on the Thursday attended a Board of Guardians of the Clapham Union, where he remained from eleven until four, and in the evening attended a reading-society of which he was a member.

On the Friday (16th) he appeared more cheerful than ordinary, and rallied his brother-in-law, who was a few minutes behind the breakfast-hour, upon his sluggishness, saying, he hoped his early rising would not do him harm.   Mr. Borrodaile ordered the servant to prepare his clothes for travelling on the next day to Worthing, where his wife and children were staying, and desired her (the servant) to get a steak for dinner at six o'clock.   He then went out, telling his brother-in-law he was going to the Union, and thence to London, where he should call on his brother, but he never returned.

We have been somewhat particular in the details of this melancholy case, feeling persuaded it is one of the utmost importance to Assurance Offices generally : it is, indeed, without precedent.   Mr. Kinnear's case is similar only as regards the plea ; but there *the fact* was disputed, and very far from satisfactorily proved.   In this case, however, there could be no dispute on the facts, but the question resolved itself into a dry point of law on the finding of the jury, whether a party who dies by his own hand, unconscious of right and wrong, thereby avoids the policy. The question is a most material one, and the decision is looked to with the utmost anxiety.

The Counsel for the defendants did not call witnesses.

Mr. Justice Erskine told the jury that in his opinion the true construction of the policy was, that, where the assured intended to destroy himself, and had at the time a sufficient mind to take his own life, the case would be brought within the condition of the policy.   His Lordship referred to the various circumstances of this extraordinary and important case, and concluded with observing, ' There could be no doubt that the assured throwing himself into the water was his own voluntary act, but whether he had the will to destroy himself, knowing what the consequences of his throwing himself into the water would be, was a question which he must leave to them to decide upon the evidence.'

The jury found that Mr. Borrodaile threw himself into the water intending to destroy himself, adding that, previous to that time, there was no evidence of insanity.

The learned Judge then told the jury they must take the act itself into consideration in connection with Mr. Borrodaile's previous conduct, and then say whether they thought at the time he was capable of knowing right from wrong.

The jury retired, and on their return stated, 'That Mr. Borrodaile threw himself from the bridge with the intention of destroying himself, but that he was not capable of judging between right and wrong.'

The verdict was then entered for the defendants, with leave to move to enter it for the plaintiff.

On the 30th of January, 1842, Sir Thomas Wilde moved, pursuant to leave given, to enter the verdict for the plaintiffs, contending that the verdict was in fact a finding that Mr. Borrodaile was *non compos mentis*, and argued that the condition in the policy, by which it was provided that the policy should be void in the event of the party dying by his own hand, must be construed to mean ' in the event of the party's becoming *felo de se*.'

The Court granted a rule to show cause.

On the 6th of June Mr. Serjeant Channel contended that the finding of the jury was, that Mr. Borrodaile threw himself from the bridge intending to destroy life, and knowing that the act would destroy life ; therefore, *if the assured by his own agency produced death, the policy was void*, and the verdict ought to remain with the defendants.

Sir Thomas Wilde observed that the other side found it necessary to admit that it was not simply the act of death by the party's own hand which would avoid the policy, but death which was intentionally produced. That discussion would have the effect of preventing the issuing of future policies in the equivocal language at present employed : the Office might add to the condition vacating the policy in the event of a party's dying by his own hand, the words ' whether sane or insane,' and then individuals might enter into a contract with them if they thought proper. The learned Serjeant, after a lengthened argument, insisted ' that the legal result of the verdict excluded intention in any sense which could make the policy void, and it was submitted on those grounds the verdict must be entered for the plaintiff.'

Lord Chief Justice Tindal.—' I understand the argument for the plaintiff to proceed on the ground that the second finding of the jury was equivalent to a verdict of *non compos mentis*.'

Sir T. Wilde.—' Yes, certainly, my lord.'

Mr. Justice Coltman.—' Suppose a man in a state of insanity had gone to America, what would you have said in that case ? '

Sir T. Wilde.—' That would be a much more difficult case than the present. The policy contains an unambiguous clause that the assured shall not go beyond the limits of Europe : but here the expression is equivocal.'

Lord Chief Justice Tindal.—' We will take time to consider this.'

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Cook v. Black, Chancery, Feb. 10, 1842.   V. C. Wigram.

The Britannia Life Assurance Company have certain conditions indorsed on their policies to the following effect: ' If the person assured commit suicide, and the policy shall have been assigned to any person having a *bond fide* interest in his life to the extent of the sum assured, the full amount thereof will be paid to the party or parties so interested. If the amount of interest be less than the sum assured, the party or parties will be indemnified to the full extent of such interest.'

The plaintiff Cook was a creditor of J. C. Boutall, and, in order to secure what was owing to him, the plaintiff, in the month of May, 1838, effected an insurance on Boutall's life for 700*l.*, and one premium on the policy was paid.

On the 20th of July, 1838, Boutall wrote to the plaintiff in these words: ' I will leave in your hands a policy of assurance for 700*l.*, effected by you for me in the Britannia Life Assurance Company, numbered 663, as a collateral security for payment of 260*l.*, due from me to you, and also for any other sum that may at any time become due to you on bills of exchange or otherwise, and I will assign the same to you when required so to do.   J. C. Boutall.'

In February, 1839, Boutall committed suicide, and the plaintiff thereupon claimed payment from the Britannia Office of the sum due to him from Boutall at the time of his death, as secured by the deposit of the policy.   This the Assurance Company refused to pay, on the ground that no notice had been given to them of the deposit and agreement to assign.

The bill was filed to have an account taken of the sum due to the plaintiff in respect of the above transactions, and to enforce payment against the Insurance Company.

Sutton, Sharpe, and Shapter, for the plaintiff, cited How v. Dawson, 1 Ves. Sen., 331; Edwards v. Scott, 1 Mann. and Graing., 962; Exparte Smith, 5 Jur., 874.

Lloyd and Bacon for the defendants.

Wigram, V. C.—' I think it is due to the Company to say that they were perfectly justified in putting the party to strict proof of his claim. The first question would be, how the case would have stood between the holder of the policy and Boutall himself.   The effect of the transaction was to give the plaintiff in this Court a right to enforce payment of his demand out of what was due upon the policy.   How would the case have been if Boutall's estate had been entitled to the money in case of his natural death.   It is quite clear, as between the assurer and assured, the plaintiff would be entitled to be paid out of what was coming to the estate of Boutall.   Whether the right accrued by a deposit of the policy or a formal assignment can make no difference.   The effect of the transaction, in equity, is to give him all that an assignment would

him, and the letter does, in fact, assign the benefit of it. This
t a question of mere form, but a proposition of substance. In a
action between the assured and the person lending money to him,
e the assured gives the party a right to take payment of the money
if the policy, it is, in truth, an assignment. That being clear, the
tion is, whether there has been such an assignment as the third
ition requires. If I put that meaning upon it, the whole trans-
n is rational. The meaning of the condition is, that the assured
ld have the power of negotiating the policy, so that any person
ncing money upon it should have a security, notwithstanding the
red should commit suicide; and so it was more valuable as a ne-
ible security: so that, if there had been any such dealing between
assured and another party, which would constitute that party an
gnee of the policy, he should have the full benefit of it. Upon that
pretation the condition is intelligible; strictly, there can be no
l assignment of a policy; but it was said that the office meant to
ilate for a particular form of assignment; the words, however, of
conditious are general, ' if the person assured shall assign;' there-
, I must construe the terms as I construe the words of the letter,
they will pay the amount of the policy to a third person, who has
i *fide* advanced his money. It was properly admitted at the bar
notice to the office was not of the essence of the assignment, but
the absence of notice was evidence of *mala fides:* but there is suf-
nt evidence in the case to justify me in holding that the plaintiff is
led to be paid his debt out of the policy. The defendants, how-
, are entitled to an inquiry whether the plaintiff has any other secu-
s by means of which he could obtain payment.'

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he last cases we shall notice elicit a fraud of a different description.
n action was tried at Kingston, in April 1841, against an individual
ed Williams, forming one of the ' Independent West Middlesex
rance Company,' whose disgraceful frauds are perhaps unparalleled
ie annals of our jurisprudence.
; was stated that this action was brought to recover back a large
  of money of which the plaintiff had been defrauded by means
he specious artifices and contrivances of the pretended Company
, which the defendant was connected. It would be proved that the
ndant had a share in the production and carrying on of this scheme,
that the whole was a fraud on the public. Persons were hired, at
ll sums per day, to sign policies as directors; they were dressed
jewelled for the purpose; and fines were inflicted on such of the
ctors in particular as omitted to *wear their rings.* By these means
public *were plundered to* a great extent.
verdict was given for the plaintiff, and immediate execution
ed.

In the following year (1842) several actions were brought against Hole, another participator, and, in fact, the originator of the plan, and the principal gainer by the plunder, of which, it is clear, he appropriated to himself the lion's share. These cases are so curious that we have given one of them fully.

NAPIER *v.* HOLE, Kingston, April 1, 1842.

' An action against the defendant, as the originator and principal in the establishment of a pretended company, calling themselves ' The West Middlesex Insurance Association,' to recover the sum of 900*l.* paid to that pretended company by the plaintiff, a lady, for an annuity of 76*l.* 10*s.*, of which sum of 900*l.* it was alleged that the plaintiff had been defrauded, and that the pretended company had been got up for the purposes of fraud.

Mr. Platt and Mr. Gurney were for the plaintiff; Mr. Chambers for the defendant.

Mr. Platt, in opening, observed that the defendant had set on foot, in 1836, an establishment, which he called 'The West Middlesex Insurance Association,' whence the public, it was stated, were to derive great advantages. Prospectuses of an alluring description were circulated, and, in the course of a short time, sums to a very considerable amount were deposited for the purchase of annuities. The capital of the Company was said to be 1,000,000*l.*, which had been raised by sale of 20,000 shares, at 50*l.* each; and the names of fifteen persons, all bearing the title of ' Esquire,' were duly advertised; and it was added that the bankers of the Company were the Bank of England, the Bank of Ireland, and the Western Bank of Scotland. For about four years the concern appeared to go on prosperously, but at the commencement of the year 1841 the bubble burst, and it was then ascertained that the whole was a fraudulent scheme, set on foot to entrap the unwary, and plunder them of their property. Of the fifteen directors, it would be shown than ten or twelve names were wholly fictitious, and that the others were persons in humble life; that not only was there no capital, but that none of the shares alleged to have been taken were ever paid for; and it was clear, said the learned counsel, that the defendant, in originating this pretended Company, knew that it could not be successful; but that he embarked in it for the purpose of plundering the unwary, and applying to his own use the money invested with the alleged Company.

Henry Harvey was clerk in the office of the West Middlesex Insurance Association from October, 1837, to its close in January, 1841. The offices were in Baker-street, Portman-square. The prospectuses produced were issued from the office. They contain the names of fifteen directors; amongst them is Mr. H. Alexander; never saw any one of that name at the office: never saw more than three or four of the per-

:ons named as directors. The book containing an account of the annuities granted was kept by the witness; it contained an account of the moneys received. The defendant received the money; he always received the money paid for annuities. The defendant was secretary and treasurer from the commencement until September, 1839: he stated to witness, in October in that year, that he had resigned. He attended the board and signed policies: the board met on a Friday. The defendant acted as manager, and always gave instructions to witness. When the establishment was broken up a great many persons applied for money.

W. Wilson.—I was one of the directors. I kept a school in the Edgeware-road, and solicited employment as a clerk in the office. The defendant said I should be in the office, and placed my name in the list of directors. I was to receive 5s. per week, and to attend only once a-week, on board-days, to sign policies: I used to sign all the annuity-deeds and policies that were laid before me. A number of shares were allotted to me when I became a director, but I did not pay anything for them. The Company had not any capital that I am aware of. I continued to act as director until the breaking up of the concern. The defendant was secretary and manager nearly the whole of the time. Amongst the names of the directors are H. Alexander, Esq., —— Bedford, Esq., R. Ayre, Esq., —— Hope, Esq., and —— Fergusson, Esq. I do not know any such persons; never saw them at the board or at any of the meetings. There are also the names W. Wilson, Esq., and T. P. Price, Esq.: I am the person first alluded to, and T. P. Price is a youth of 16 years of age, who was employed in the office as errand-boy; a certain number of shares was allotted to each. The defendant always paid me my salary; he paid all other persons employed in the concern. I was to have 5s. per week for the first year, and 10s. afterwards. After being a director two years, I was promoted to the situation of clerk, at 75l. per year; but still retained my seat at the board. For my last year's services I received 300l. I received the letter produced from the defendant: it is in his handwriting:—

' Sir,—During the time of my secretaryship the following sums were paid by me:—Knowles, 4040l.; Mr. Williams, 4038l. 5s.; Ditto, as solicitor, for office business, 1857l. 4s.; Mr. Hole, 7357l.; Ditto, on retiring, 10,000l., in manner following:—Houses in Glocester-place, Surrey-street, and Maida-hill, to Hole the freeholds, 8900l., total to Hole, 26,257l. I have the checks to prove the sums I paid to Knowles and Williams; therefore, whoever said I had more than this is a liar like unto Peter, who denied his Master and afterwards went and wept; or like unto Judas, who betrayed his Master, and went afterwards and hanged himself. All that I have said or written I can prove.

' Yours, &c.   W. Hole.

' April 23rd, 1840.'

Cross-examined.—I keep a small school now in the neighbourhood of Hoxton. I gave up my school when I went to the Insurance Company as clerk. I received altogether about 700*l.* during the four years I was in the concern. I assured my life for 100*l.* in the office. The office was finally closed in January, 1841. Did not think I was doing anything wrong when I went to the board. I thought the directors were all honourable men. I was not startled at the large liabilities I signed my name to, as I was assured by the defendant that there were plenty of funds in the establishment. Certainly did not consider there was anything wrong when I saw myself described as a director with ' Esquire' attached to my name. The defendant is my brother-in-law. I placed every reliance on what he said. All annuities were paid up to the quarter previous to the dissolution of the Company.

Re-examined.—I insured my life in the concern for 100*l.*, and allowed discount for present payment, and I received 93*l.* I got the money immediately after I insured. The defendant gave me the amount.

Three checks for 500*l.* each were then put in: they were signed ' William Hole,' and made payable to Mr. Williams. One check was on the Bank of England, and the others on the Western Bank of Scotland.

By Mr. Baron Gurney.—The concern was broken up for want of funds. I do not know if there were any assets when it was dissolved.

William Edward Taylor.—I was one of the directors. Was appointed when the Association was first established. Previous to that period I was a journeyman locksmith and bell-hanger, and was in the employ of a Mr. Greathead. The defendant married my wife's sister. I was applied to by the defendant and Knowles to become a director. Was in the habit of attending the board on Fridays. I received 2*s.* 6*d.* for each attendance, for a year and a half. I afterwards received a salary of 80*l.* per annum, though I only attended as a director to sign my name to policies. Knowles was chairman of the directors. I was desired by the defendant to sign my name. I signed all documents laid before me. It was at first arranged that I should sign for three years, as Mr. Williams was then to take my place; but at the expiration of that time the defendant said I might as well continue to sign, as it was all the same.

Mr. Platt.—Did you receive any directions with respect to your dress and appearance ?

Witness.—Oh, yes: we were to dress well, and were ordered to wear rings and jewellery.

Mr. Platt.—Did you do so ?

Witness.—Yes. The defendant gave us rings to wear.

A paper in the defendant's handwriting was here read, upon which was a memorandum dated September 13, 1839, to the following effect: 'Taylor fined for not wearing his ring.' The witness said they had been often fined for a similar offence.

Cross-examined.—Many fines were levied and exacted. Was ordered by the defendant to sign the documents.

Mr. Baron Gurney.—The witness and his colleagues appeared to be the 'directed,' instead of the 'Directors.'

Joseph Packer.—I am a law-stationer. Was employed to engross the deed of the Company, which was dated 26th of September, 1887. I saw the first nine names of the list of shareholders signed on that day. I was afterwards desired to obtain other signatures. I did so during the vacation in 1840. I applied to persons indiscriminately to put their signatures to it, and it remained at my office for that purpose. ·I was employed by Knowles and Williams. I recollect being at the Company's office one morning when the defendant and his wife were there. The post had just been delivered, and I saw the defendant take some bank-notes from the letters he opened. He made some observation to his wife: I believe it was, 'Look here.' He then put the notes in his pocket and went away with his wife. Whenever I got any persons to sign the deed a number of shares was placed opposite their names.

Cross-examined. — Knowles married my wife's sister. Knowles employed me to engross the deed.

The deed was then read, by which it appeared the defendant was appointed secretary and *ex officio* a director for life. It also stated that besides his salary he was to be allowed 70 shares; and his wife, as a provision for her, and for her absolute use, was to be allowed 700 shares.

Another letter of the defendant's was also read :—

'*France, Jan.* 9, 1841.

' Knowles—Thou art a scoundrel, and thy son no better. I shall print and publish all the bye-laws and proceedings which relate to any transactions which I had with the Company, and expose your villany to Mackenzie and others ; and I give you and your lying rascal of a brother notice, that, if you or he should dare to publish any slander relative to my character, I shall instruct my solicitor to prosecute you, you d——d perjured scoundrel !—you base wretch !—swear against your own handwriting ! — what ! swear you never borrowed any money of me for the office !—Oh, wicked wretch ! I have your signature, and my solicitor has seen it. Base, base, base ! hang thyself, with your friend Williams.—Truth.

' WILLIAM HOLE.

' P.S. I have heard you have again plundered the office—oh, how many times, wretch !!'

Mr. Chambers for the defendant, in a long address to the jury— while he admitted that the defendant was the originator of the Com-

pany—contended that a verdict ought not therefore to pass against him, because, as the learned counsel insisted, the defendant had made an erroneous calculation, but had not committed any fraud. The learned gentleman then made an allusion to a highly respectable office which had derived its existence from the exertions of one individual, the late Mr. Barber Beaumont, and observed, that, if Mr. Hole's speculation had happened to prove equally successful, no blame would have been attached to him; and it was too much to say that the defendant should be visited with punishment, merely because his undertaking had not been successful.

Baron Gurney.—The plaintiff seeks to recover from the defendant a sum of money of which he had, as was alleged, deprived her by fraud. If you believe the money was obtained by fraud by the defendant, or by others acting in conspiracy with him, the plaintiff is entitled to your verdict. You will look at all the circumstances of the case, and on those circumstances it will be for you to decide whether or not fraud has been proved. It appears this Association was established in 1836, that it professed to have a capital of 1,000,000*l.*, that names were put to the prospectuses issued to the public, describing persons as 'Esquires,' some of whom were not in existence, and others were persons of low station, who were paid small sums weekly for signing their names. It also appeared that the defendant was the original promoter of the speculation, and had the management of it. The question for you is, whether this was a *bond fide* company or not—whether it was established for the purposes of an ordinary insurance association —or whether it was a scheme by unprincipled persons to get possession of the money of all those whom their prospectuses induced to invest with them, and then apply it to their own use. In the former case you will find for the defendant; but if you think that the fraud suggested has been proved, you will return a verdict for the plaintiff.

The jury immediately found for the plaintiff, damages 900*l.*

STANLEY *v.* HOLE.

A similar action against the same defendant, and on the application of his counsel the jury were changed. Similar evidence was given.

The jury found for the plaintiff, damages 143*l.*

In the following actions, which were all against the same defendant, at the suit of different plaintiffs, and in each of which like evidence was given, the following verdicts were returned:—

Hopkins *v.* Hole	. . damages	£2500
Norris *v.* Hole . . .	,,	144
White *v.* Hole . . .	,,	174
M. Jones *v.* Hole . .	,, .	67 10

Letitia Jones v. Hole	damages	£199
Holmes v. Hole	,,	197
Barnett v. Hole	,,	496
Howard v. Hole	,,	96
Scougall v. Hole	,,	163
Bean v. Hole	,,	400

Mr. Platt applied for immediate execution in all the causes.

Mr. Baron Gurney.—You are entitled to it.

It has been our object, in making the foregoing selection of cases, to lay before our readers those most worthy of attention. Our difficulty has arisen not through lack of materials, but from the necessity of selecting from an immense mass of reports (all in themselves important) those cases most deserving of notice, either from the extraordinary facts attending them, or as carrying out some novel principle—forming, as we conceive, a useful reference, and at the same time giving some insight into the law now recognised as affecting assurances on lives.

It will be seen, on referring to our selection, that in effecting assurances on lives (we speak at present of parties insuring the lives of others) two important points must on no account be allowed to escape attention— that is to say, the interest of the party effecting the assurance in the life assured, and the statements made to the Office by such party or his agents.

The interest must be *bonâ fide* and *pecuniary*; no other will suffice: mere relationship is not enough, though it is no bar to an assurance, provided the other requisites are complied with. Thus, a man may insure the life of his wife having an income for life only, or being entitled to a reversion contingent on the death of another party; for it is obvious that the husband in either case must sustain a pecuniary loss from the death of his wife. This liability to pecuniary loss is, indeed, the test of interest: a man may assure the life of his debtor, as, generally speaking, the debt would be, in some degree at least, put in jeopardy on the decease of the debtor. The observation holds good in general; but in cases where ample security is also given, it is not easy to understand how the creditor can sustain pecuniary loss: however, as the Courts of law recognise the principle, it is useless to carry the speculation further.

The interest must be continuing down to the time when the amount is to be paid by the office: Mr. Pitt's case shows this to be so; but it is nevertheless the practice of many offices to pay without making inquiry as to the continuance of the interest, being satisfied if originally an interest were shown.

The interest must be also *legal*. A debt partly made up of money won by gaming will not constitute an available interest, though a security given by a minor will, if the minor do not impeach it; the distinction is this: that in the first case the security is void from the beginning as against all the world; but in the second it is voidable by the minor alone; *and therefore, if he do not think fit to interfere, no other person can raise the objection.*

With regard to the statements of the parties, it is to be borne in mind that, for the purposes of the policy, the life is the agent of the party effecting the assurance ; so that whatever is done or said by the party whose life is assured will be binding on the one effecting the assurance. No fact of importance should be concealed from the office; much less should any misrepresentation be made : in either case the policy would be avoided ; and it must be always a matter of anxiety and doubt, if any fact *be* concealed, whether a jury will pronounce it material or not. It is obvious that a man cannot be said to conceal that which he does not know ; but it is equally clear that a man may make an untrue statement from ignorance merely, though it will not be the less untrue because the party making it did not know it to be so.

In cases where parties assure their own lives the strictest adherence to the truth is absolutely necessary : nor ought anything material to be concealed ; for if a man is compelled to suffer loss from the concealment or misrepresentation of his agent, it is certain he ought to suffer where the statements made are his own.

The object of instituting offices to grant assurances on lives was of the most praiseworthy and benevolent kind. These institutions were, however, grossly abused : men speculated upon others' lives in which they had not the slightest interest, and effected assurances upon all sorts of events. To remedy such an evil the wholesome statute of 14 Geo. III. was passed, and the result is, that now a man cannot make a wager with an assurance office on the duration of life, but must have a *bonâ fide pecuniary* interest in the life assured. It was a mistake to suppose that a party seeking to assure thereby undertook a risk ; the risk was undertaken before, and the effect of the policy was to guard against that risk.

Complaints have been made, and sometimes perhaps justly, that assurance offices too often contest the validity of their policies. It may be so; but when we look back to the cases here thrown together, and notice the vast number of frauds effected and attempted against the offices, we do not wonder at the extent of litigation on life assurances. The wonder is, there are not more litigated cases.

To quote Serjeant Marshall : ' Considering,' says the learned gentleman, ' the great multiplicity of assurances which have of late years been made upon lives, the number of litigated cases which has arisen upon them is extremely small. One principal reason is, that the happening of the event assured against is always a fact of easy proof, which can scarcely ever afford any subject of dispute. Another is the great difficulty of practising any fraud on such assurances. But to no cause is this fortunate circumstance more to be ascribed than to the honour, integrity, and liberality of the several Companies engaged in that branch of assurance.'

TABLE OF ERRATA.

Page 7, line 3 from bottom, *for* $\sqrt{\dfrac{8i\frac{s}{a} + (2-i)}{2i}}$ *read* $\sqrt{\dfrac{8i\frac{s}{a} + (2-i)^2}{2i}}$

8,   9   ,, $8\dfrac{s}{a}$ *read* $8i\dfrac{s}{a}$

12,   4   ,,   logarithm the, *read* logarithm of the.

17,   14   ,,   5 per cent, *read* 4 per cent.

20,   13 from top, $p\left(1 + \dfrac{i}{m}\right)^{n}$ *read* $p\left(1 + \dfrac{i}{m}\right)^{mn}$

22,   2   ,,   logarithm of £1, *read* logarithm of the amount of £1.

25,   22   ,, $\left(\dfrac{s}{p}\right)^{\frac{1}{n}}$ *read* $\left(\dfrac{s}{p}\right)^{\frac{1}{n}}$

32,   6 from bottom,   Art. 44, *read* Art. 45.

37,   5 from top,   ditto   ditto.

—,   9   ,, $\dfrac{a}{m}$ *read* $\dfrac{a}{m'}$

—,   10   ,, $\dfrac{m'}{m}$ *read* $\dfrac{m}{m'}$

43,   4 from bottom, $\dfrac{a}{m}$ *read* $\dfrac{a}{m'}$

47,   5   ,, $n = 10$ *read* $d = 10$.

58,   2   ,,   dele $m = \dfrac{\log s - \log p}{n \log\left(1 + \dfrac{i}{m}\right)}$

59,   12 from top,   dele $m = \dfrac{\log s - \log p}{n . \log\left(1 + \dfrac{i}{m}\right)}$

—,   6 from bottom, $\beta = \left(\dfrac{s}{an}\right)^{\frac{1}{n-1}} - 1$. *read* $\beta = \left(\dfrac{s}{an}\right)^{\frac{1}{n-1}} - 1$.

109,   9 from top,   Art. 33, *read* Art. 35.

111,   21   ,, $\log l_{14}$, *read* $-\log l_{14}$.

117,   9   ,, $l_{m+s}(1+i)^{-s}$, *read* $l_{m+s}(1+i)^{-s}$

—,   -   ,, $(1+i)^{-s}$, *read* $l_z(1+i)^{-(s-m)}$

—,   12   ,, $l_{m+s}(1+i)^{-(m+s)}$ *read* $l_{m+s}(1+i)^{s-(m+s)}$

—,   19   ,,   Carlisle 3 per cent *read* Carlisle 4 per cent.

121,   6 from bottom, l_{m+s+1} *read* l_{m+s-1}

123,   12   ,,   oldest *read* older.

124,   18 from top   male aged 85 and female aged 90 *read* male aged 90 and female aged 85.

—,   21   ,,   .00760049 *read* .00760449.

Page

127, line 8 from top, *for* $a_{m_{1_m}}$ *read* $a_{m_{m^1}}$

129,   9 from bottom,   Chester 3 *read* Carlisle 4.

138,   11   ,,   Art. 142 *read* Art. 143.

142,   13 from top, $\dfrac{a_{(m\ m)}^{\quad 7^1}}{P_{m.7}}$ *read* $\dfrac{a_{m.m}^{\quad 7^1}}{P_{m.7}}$

148,   6 from top, $\dfrac{m.27\ r^8\ l_{m}\ .\ l_{m}}{l_{14}\ .\ l_{19}}$ *read* $\dfrac{a_{m.27}\ r^8\ l_{m}.l_{27}}{l_{14}\ .\ l_{19}}$

151,   4   ,, $\dfrac{P_{(m-1,\ m_1-1\ m_2-1),}^{\quad a}}{P_{(m-1,\ m_1-1\ m_2-1),1}}$ *read* $\dfrac{P_{(m-1,\ m_1-1,\ m_2-1,\ \&c.),a}}{P_{(m-1,\ m_1-1,\ m_2-1,\&c.),1}}$

155,   16   ,,   formula *read* formulæ.

177,   6 from top, $-(N_m,\ m_1+N_m,\ m_1)$ *read* $-(N_m,\ m_1+N_m,\ m_1-1)$

178,   9 from bottom,   1.7036766 *read* 17036766

190,   bottom line, $p=\dfrac{a-is}{a}$ *read* $p=\dfrac{a-is}{s+a}$

192,   11 from bottom,   Art. 188 *read* Art. 191.

195,   Insert in Example M_{91} = 528.2345
                                                    114.2147
                                            ————————
                                            414.0198

196,   18 from top,   *for* $\dfrac{M_m-p(N_{m-1},\ \&c.}{D_m}$ *read* $\dfrac{M_m-\{p(N_{m-1},\ \&c.\}}{D^m}$

199,   4   ,,   *t read* m + n

202,   14   ,,   *n read* m + n

211,   13   ,, $\dfrac{l_{m+n}}{l_m}.\dfrac{l_{m_1+n}}{l_{m_1}}.a_{m+n,m_1+n}$ *read* $r^n\dfrac{l_{m+n}.l_{m_1+n}}{l_m\ .\ l_{m_1}}a_{m+n,m_1}$

217,   5   ,,   ditto   ditto.

218,   8 from bottom, $t-1$ *read* £1.

220,   7 from top, $n.N_{m+n}$ *read* $n.M_{m+n}$

221,   18   ,,   Table 21 *read* Table 19.

222,   13 from bottom,   26 *read* 36.

223,   7   ,,   4395 *read* 4397.

224,   4 from top,   to continue *read* deferred.

225,   7   ,,   Table 21 *read* Table 19.

229,   top line, after B and P add and of A and B—correct example according

233,   18 from top,   .703351 *read* .703371, and correct the remaind
                                of the example.

234,   27   ,,   38.43 *read* 38.42.

243,   Column N, age 91, *for* 3.4846 *read* 3.4646.

1115,   5 from bottom,   three *read* nine.

ON PROBABILITY.

By Sir Wm. Lettock, K. J. E. Drinkwa. Bethun

1. In considering any future event, we are generally unable to determine whether or not it will happen; yet, we can often conjecture the number of cases which are possible, and of these how many favour the production of the event in question. In our uncertainty, we say that there is a chance it will happen; and thus our idea of chance arises from our wanting data which might enable us to decide whether or not the event will take place. If, for instance, a bag contain one white and two black balls, it is impossible to decide whether or not a black ball will be drawn in one trial; but we know that there are three cases possible, of which two favour the appearance of a black ball and one the contrary, and of these, we have no reason to think one more probable than another.

2. The operations of the mind are of two kinds; the one consists in acquiring data, the other consists in making deductions from data previously acquired. Our data are only probable; our deductions from these are also probable. The subject, therefore, of this treatise is intimately connected with every science, and, whether on account of its numerous and useful applications, or of the exact reasoning by which its principles are established, carries with it the highest degree of interest. In the sequel we shall explain the method of applying it to the calculation of life annuities, a few tables of which will be subjoined.

3. To avoid circumlocution, those cases which embrace the production of a particular event are called the favourable cases, and those which do not, the unfavourable cases. It is usual to apply the word belief to the past, and the word expectation to the future; but the theory of probability is in all respects the same, whether it be applied to past or to future events. When we endeavour to discover whether an event $\left\{ \begin{matrix} \text{did} \\ \text{will} \end{matrix} \right\}$ happen, we review the different cases which are possible. If the favourable cases are more numerous than the unfavourable, we $\left\{ \begin{matrix} \text{believe} \\ \text{expect} \end{matrix} \right\}$ that the event $\left\{ \begin{matrix} \text{did} \\ \text{will} \end{matrix} \right\}$ take place. The words believe and expect, and those to which they correspond, are placed between brackets, in order to show that the reasoning is the same in both cases. Let us suppose that a bag contains one black and two white balls: if I am asked whether a white ball will be drawn, or if, a ball being already drawn, but concealed from my view, I am asked whether a white ball has been drawn, it is clear that the judgment formed in both cases will be the same. I answer in both cases, that it is more probable that the ball which is drawn is white than black, yet if the ball be already drawn, but concealed from my view, the event is already determined and certain. We perceive, therefore, that the estimation of probability has no necessary reference to actual occurrence, but only to the means of judging which a given individual possesses.

4. We have used the word probability before giving its definition, because its popular meaning has hitherto sufficed for our purpose. We now give its mathematical definition, which is this: the probability of any event is the ratio of the favourable cases to all the possible cases which, in our judgment, are similarly circumstanced with regard to their happening or failing. Thus, if a bag contain one white and two black balls, the probability of drawing a white ball is $\frac{1}{3}$; the probability of throwing ace with a die at the fir

B

throw is $\frac{1}{6}$; or, in common language, we should say of the first of these events that the odds are $2:1$ against it, and of the second $5:1$.

Generally, if $m+n$ is the whole number of cases, and if m is the number of cases which are favourable to the event P, $m:n$ are the odds n .... unfavourable ....

In favour of the event P, and the probability of the event P is $\dfrac{m}{m+n}$

5. Simpson has defined the probability of an event to be the ratio of the chances by which the event in question may happen to all the chances by which it may happen or fail. In this definition the word chance must be understood a way of happening; we, however, frequently say, " I left such a thing to chance," or, " such a thing is entirely chance ;" these expressions, which are in some measure sanctioned by common use, are intended to signify that we are ignorant of the causes which produce the event in question, or that we do not influence its occurrence.

6. When there are many events, such that one must, and only one can happen on any given trial, we shall call them conflicting events; and it is evident, from the definition of probability, that the probability that either of two conflicting events will happen on any single trial is equal to the sum of their respective probabilities; it is also evident that the sum of the probabilities of all the conflicting events which can happen on any single trial is expressed by unity; for, by the supposition, one of them must happen. Our $\left\{\begin{array}{c}\text{belief}\\\text{expectation}\end{array}\right\}$ is founded upon the probability of the event under consideration. It will often happen that our judgment is influenced by circumstances of too complicated or delicate a nature to be submitted to numerical calculation; and the conclusions with which this science furnishes us are true only within the limits of the errors which arise from neglecting these considerations. We experience the same difficulty in applying to physical phenomena the theories deduced from abstract principles of measure and motion. When all the cases which are possible, are favourable, the event is certain and belief becomes certitude, or knowledge. *Certainty*, which is the greatest probability, is therefore represented by unity; it must be distinguished from the highest degree of belief which we have called *certitude ;* they are often confounded with each other, while they differ in the same manner as probability and belief differ. In fact, we want two words for every stage as much as for unity, the one to express the ratio of the favourable to all the cases possible, the other denoting the opinion consequent on the perception of that ratio.

7. If a bag contain no white and ten black balls, the probability of drawing a white ball is $\frac{0}{10}$, or, zero; if, on the other hand, the bag contain 10 white and no black balls, the probability of drawing a white ball is $\frac{10}{10}$, or unity, and whatever be the number of black balls, the probability of drawing a white ball must be some fraction between 0 and 1, which are its limits. When the fraction which expresses the probability of an event is little different from unity, we say the event is very probable, or nearly certain; when it is but little greater than $\frac{1}{2}$, we say it is probable; when $\frac{1}{2}$, doubtful; when rather less than $\frac{1}{2}$, improbable; when much less than $\frac{1}{2}$, very improbable; and when zero, impossible.

8. We habitually assent to propositions which have in their favour a probability less than unity: this degree of probability is vulgarly called moral certainty, an expression which is at variance with every analogy of language. The state of mind of a man who is aware of unfavourable events

which are possible, but who disregards them by reason of their reputed improbability, is perhaps what is meant. Some philosophers have endeavoured to fix the numerical fraction to which this moral certainty is equal by observing the risks of which men are in general careless. Buffon chose the fraction $\frac{9999}{10000}$; Condorcet estimated it in a different manner, and of course obtained a very different result. Indeed it is obvious that this fraction is arbitrary, and we shall therefore not enter more minutely into this question. There may, perhaps, be a practical utility for each man to determine the risk his own temperament enables him to disregard, in order to obtain a standard with which to compare the results of occasional theorems: without some such comparison they might fail in their abstract numerical form to determine his judgment.

9. We have said that probability does not exist in the abstract, but always refers to the knowledge possessed by some particular individual. Let us suppose that a bag contains one white and two black balls, and that A having drawn a white ball holds it so that he can see what colour it is, but so that B cannot. Here three cases appear possible to B, of which two favour the drawing a black ball; the probability therefore that it is a black ball to B is $\frac{2}{3}$, while the probability to A that it is a white ball, is unity, or certainty. Again: suppose a bag contain one white, one black, and one red ball; A, having drawn a white ball, whispers to B that the ball which is drawn is not red. Three cases appear equally possible to C, of which one only favours the drawing a white ball; C therefore estimates the probability at $\frac{1}{3}$, while B (if he believes the information given him by A) has only two alternatives to choose between: he therefore estimates the probability at $\frac{1}{2}$. Even if B do not implicitly believe the information given him by A, it is clear that his judgment will be formed on grounds different from those on which C decides.

10. It is thus that the same fact related before a numerous audience obtains from different individuals different degrees of belief: this is chiefly to be attributed to the different degrees of knowledge possessed by different individuals of circumstances which bear on the fact in question. An inhabitant of the torrid zone has difficulty in believing that water freezes; and the recovery of a sick person may appear probable to one unacquainted with medicine, while the skilful physician despairs of effecting a cure.

11. It follows from the definition of probability, that to determine the probability of any event, it is only necessary to enumerate the cases which are favourable and those which are unfavourable to its production, in order to form the fraction which expresses its probability. In order that this may be well understood, we shall begin with some very simple examples, and for these it will be necessary, at first, to have recourse to games of chance, in which the whole number of possible occurrences is most readily ascertained.

Ex. 1. Suppose a piece of money is thrown into the air, and that the probability of its falling on the obverse side twice successively is required: here the following cases present themselves.

Case 1. The obverse both times.
    2. The obverse the first time and the reverse the second.
    3. The reverse the first time and the obverse the second.
    4. The reverse both times.

These are the only cases possible; and if we are ignorant of the existence of any cause tending to make the piece fall on one side rather than on the other, they are all similarly circumstanced, and therefore the probability of each case is $\frac{1}{4}$.

The probability of the obverse once and the reverse once in any order is $\frac{1}{2}$, because the second and third cases favour the production of this event; and the probability of the obverse arising at least once is $\frac{3}{4}$, because the first, second, and third cases are favourable to this event.

Ex. 2. Again, suppose of two bags one contains 5 white balls and 2 black, and the other 7 white balls and 3 black. The number of cases possible in one drawing from each bag is $(5 + 2) \times (7 + 3)$ or 7×10, because every ball in one bag may combine with every ball in the other, which cases, if we are ignorant of any cause favouring the appearance of a white rather than a black ball, are all similarly circumstanced.

The number of cases which favour the drawing a white ball from both is 5×7, for every one of the 5 white balls in one bag may combine with every one of the 7 white balls in the other. For a similar reason, the number of cases which favour the drawing a white ball from the first bag and a black ball from the second, is 5×3; a black ball from the first bag and a white ball from the second, is 7×2; and a black ball from both is 3×2. Therefore,

$$\frac{5 \times 7}{(5 + 2)(7 + 3)} = \frac{1}{2} \text{ is the probability of drawing a white ball from both.}$$

$$\frac{5 \times 3}{(5 + 2)(7 + 3)} = \frac{3}{14} \quad \cdots \quad \cdots \quad \left\{ \begin{array}{l} \text{a white ball from the first and} \\ \text{a black ball from the second.} \end{array} \right.$$

$$\frac{7 \times 2}{(5 + 2)(7 + 3)} = \frac{1}{5} \quad \cdots \quad \cdots \quad \left\{ \begin{array}{l} \text{a black ball from the first and} \\ \text{a white ball from the second.} \end{array} \right.$$

$$\frac{3 \times 2}{(5 + 2)(7 + 3)} = \frac{3}{35} \quad \cdots \quad \cdots \quad \text{a black ball from both.}$$

The probability of drawing one white ball, without reference to the bag from which it comes, is

$$\frac{5 \times 3 + 2 \times 7}{(5 + 2) \times (7 + 3)} = \frac{29}{70},$$

for both the second and third cases favour the production of this event.
The probability of drawing at least one white ball is

$$\frac{5 \times 7 + 5 \times 3 + 2 \times 7}{(5 + 2) \times (7 + 3)} = \frac{32}{35},$$

for the first, second, and third cases favour the production of this event.

Let the number of white and black balls in each bag be the same, say 5 white and 2 black, then the probability of drawing

a white ball from both . . . . $= \dfrac{5 \times 5}{(5+2) \times (5+2)} = \dfrac{25}{49}$

a white ball from the first and a black ball from the second $= \dfrac{5 \times 2}{(5+2) \ (5+2)} = \dfrac{10}{49}$

a black ball from the first and a white ball from the second $= \dfrac{2 \times 5}{(5+2) \ (5+2)} = \dfrac{10}{49}$

a black ball from both . . . . $= \dfrac{2 \times 2}{(5+2) \ (5+2)} = \dfrac{4}{49}.$

Ex. 3. Two dice are thrown; required the probability that the sum of the numbers on the sides which fall uppermost, or the throw, is any given number, say 7.

Since every one of the six numbers on one of the dice may combine with every one of the six on the other, the number of throws on the dice is 36.

The number 7 may be made up of $\left\{\begin{array}{l} 1 \text{ and } 6 \\ \text{or } 3 \text{ and } 4 \\ \text{or } 2 \text{ and } 5 \end{array}\right\}$,

and as these numbers may be on the one die or the other, there are in all six ways which favour the number 7, and therefore the probability required is $\frac{6}{36}$ or $\frac{1}{6}$.

Ex. 4. A, the dealer in a party at whist, desires to know the probability of his partner holding a given card. The number of cards which are held by the other three players is 39; therefore the probability that the card in question is any given card in A's partner's hand is $\frac{1}{39}$, but it may be any one of the 13 cards which A's partner holds, therefore the probability is $\frac{13}{39} = \frac{1}{3}$. Or thus, there are three cases possible: either the card is in the hand of A's partner, or of one of the other two players; and as these three cases are similarly circumstanced, the probability of either of them is $\frac{1}{3}$, the odds against it being of course 2 : 1.

A desires to know the probability of his partner holding 2 given cards.

The number of combinations of 39 things taken two and two together is $\frac{39 \times 38}{1.2}$, therefore the probability that these two cards are any given two cards in A's partner's hand is $\dfrac{1}{\frac{39 \times 38}{1.2}} = \dfrac{1}{39 \times 19}$; but they may be any two cards in A's partner's hand; therefore, since the number of combinations of 13 cards taken two and two together, is $\frac{13 \times 12}{1.2} = 13 \times 6$, the probability required is $\frac{13 \times 6}{39 \times 19} = \frac{2}{19}$, the odds against are therefore 17 : 2.

Similarly, the probability that he holds any three given cards, is $\frac{22}{703}$; the odds against are, therefore, 681 : 22.

Ex. 5. Required the probability, that in a deal at whist each player holds an honour.

The number of permutations of 52 cards taken all together is $52 \times 51 \ldots \times 3 \times 2 \times 1$, and the number of permutations of 13 cards taken all together is $13 \times 12 \times 11 \ldots 3 \times 2 \times 1$, therefore the number of different deals is

$$\frac{52 \times 51 \times 50 \quad . \quad . \quad . \quad \times 3 \times 2 \times 1}{(13 \times 12 \times 11 \quad . \quad . \quad . \quad . \quad . \quad 1)^4},$$

because the 13 cards may be permuted in each player's hand separately, without altering his hand.

The number of permutations of 48 cards taken all together is $48 \times 47 \times 46 \ldots 3 \times 2 \times 1$, therefore the number of different ways in which 48 cards can be dealt to four persons is

$$\frac{48 \times 47 \times 46 \quad . \quad . \quad . \quad . \quad 3 \times 2 \times 1}{(12 \times 11 \times 10 \quad . \quad . \quad . \quad . \quad . \quad . \quad 1)^4}$$

Let A, B, C, D be the hands dealt to each player out of 48 cards, *a*, *b*, *c*, *d*, the four honours.

It is evident that A, B, C, D may be combined with *a*, *b*, *c*, *d* in as many different ways as *a*, *b*, *c*, *d* can be permuted, that is, in $4 \times 3 \times 2 \times 1$, or 24 different ways; therefore the probability that

$$\text{each hand has an honour} = \frac{\dfrac{48 \times 47 \times 46 \ldots \ldots 3 \times 2 \times 1}{(12 \times 11 \times 10 \ldots \ldots 3 \times 2 \times 1)^4}}{\dfrac{52 \times 51 \times 50 \ldots \ldots 3 \times 2 \times 1}{(13 \times 12 \times 11 \ldots \ldots 3 \times 2 \times 1)^4}} \times 24.$$

		Odds against. About
$= \dfrac{13^4}{52 \times 51 \times 50 \times 49} \times 24$	$= \dfrac{2197}{20825},$	17 : 1

So it may be found that the probability that

			Odds
one hand has the four honours . . .	$= \dfrac{13 \times 12 \times 11 \times 10}{52 \times 51 \times 50 \times 49} \times 4$	$= \dfrac{220}{20825},$	94 : 1
two hands have each two honours . .	$= \dfrac{13 \times 12 \times 13 \times 12}{52 \times 51 \times 50 \times 49} \times 6 \times 6$	$= \dfrac{2808}{20825},$	13 : 2
one hand has two ho-nours and two hands one	$= \dfrac{13 \times 13 \times 13 \times 12}{52 \times 51 \times 50 \times 49} \times 12 \times 12$	$= \dfrac{12168}{20825},$	5 : 7
one hand has three ho-nours and one hand one	$= \dfrac{13 \times 13 \times 12 \times 11}{52 \times 51 \times 50 \times 49} \times 12 \times 4$	$= \dfrac{3432}{20825},$	5 : 1

The number of deals essentially different is

$$\frac{52 \times 51 \times 50 \ldots \ldots \times 3 \times 2 \times 1}{(13 \times 12 \times 11 \ldots \ldots .3 \times 2 \times 1)^4} \times \frac{1}{24}.$$

This number, of which the logarithm is 27.34935, is so great, that if 1,000,000,000 persons, about the population of the earth, were to deal the cards incessantly day and night for 100,000,000 years, at the rate of a deal by each person a minute, and even if each of these deals were essentially different, they would not have exhausted a $\frac{1}{100000}$th part of the number of essentially different ways in which 52 cards can be distributed equally between four players.

12. Let a bag contain 10 slips of paper, each having the name of a different individual written upon it, and suppose that the individual whose name is drawn is to receive 10*l*.

In estimating the value of the expectation of these individuals it is evident that the sum of the values of all their expectations is equal to 10*l*., the sum which one of them must receive, for if they each sold their chance of winning the 10*l*. to another person, this person would be sure of receiving 10*l*.; and since their expectations are equal, for their chances of winning are the same, if *e* be the expectation of one of them

$$10 \, e = 10, \, e = 1$$

that is, the expectation of each is worth 1*l*. It is evident, also, that if there were $m + n$ slips of paper, each having the name of a different individual written upon it, and if the individual whose name was drawn should receive *a* pounds, the value of the expectation of each individual would be $\frac{a}{m + n}$. The value of the expectation of two individuals is the sum of the

values of their separate expectations, and is, therefore, $\dfrac{2a}{m+n}$; of three indi-

viduals $\dfrac{3a}{m+n}$; and of m individuals is $\dfrac{ma}{m+n}$; but the expectation of m indi-

viduals must be the same as the expectation of one individual holding m tickets; therefore, the expectation of an individual holding m tickets is

$\dfrac{ma}{n+n}$, or $\dfrac{m}{m+n} \times a$, but $\dfrac{m}{m+n}$ is the probability of this individual win-

ning; therefore, generally, the value of the expectation of any individual with respect to any particular event is the product of the probability that the event will take place by the gain that will accrue to the individual if it does take place.

Ex. 6. Suppose the probability that a horse wins a race is p: A gives B £a: what odds should B bet A that the horse wins, in order that, on the whole, their situation may be the same? Let $x : 1$ be the odds required; then the expectation of B $= a + p - (1 - p) x$: the expectation of A $= (1 - p) x - a - p$; in order that they may be in the same situation,

$$x + p - (1 - p) x = (1 - p) x - (a + p); \quad x = \frac{a + p}{1 - p}.$$

13. All wagers are founded upon this principle, of multiplying the probability of the event by the contingent gain. Generally, however, one party does not pay down to the other a sum of money in order to receive another sum of money if a certain event takes place; but A engages to pay B a certain sum if the event takes place, and B engages to pay A a certain sum if it does not take place. Let a be the sum which A is to pay B, on the event of which the probability is p; and b the sum to be paid by B to A, if that happens of which the probability is q.

The expectation of A is equal to $bq - ap$.

The expectation of B is equal to $ap - bq$.

In order that the wager may be fair, the expectations of A and B must be equal.

$$b q - a p = a p - b q \quad a p = b q$$

$\dfrac{a}{b} = \dfrac{q}{p}, \dfrac{b}{a + b} = p, \dfrac{a}{a + b} = q$, since $p + q = 1$: a and b are the odds.

Since the sum of the probabilities of any number of conflicting events is equal to unity, we have an equation of condition between the odds; and whenever they do not satisfy this equation, it is possible to bet with the certainty of gain.

Ex. 7. Suppose three horses, A, B, C, are entered for a race, and that I bet £12. to £5. against A; £11. to £6. against B; and £10. to £7. against C.

If A wins, I gain £6. $+ 7 - 12 = $ £1.
B wins, I gain £5. $+ 7 - 11 = $ £1.
C wins, I gain £5. $+ 6 - 10 = $ £1.

Thus I gain £1. whichever horse wins, from having taken the field against each horse.

Were the odds quot-$\Big\}$ $\begin{cases} \text{A are } 5 : 12 \\ \text{B ,, } 6 : 11 \\ \text{C ,, } 7 : 10 \end{cases}$ $\Big\{$ the correspond-$\Big\}$ $\begin{cases} \frac{5}{17} \text{ in favour of A.} \\ \frac{6}{17} \cdot \cdot \cdot \cdot \text{ B.} \\ \frac{7}{17} \cdot \cdot \cdot \cdot \text{ C.} \end{cases}$
ed in favour of ing probability would be

$$\frac{5}{17} + \frac{6}{17} + \frac{7}{17} = \frac{18}{17} = 1 + \frac{1}{17}.$$

The odds are often, as in this case, far from satisfying the equation of condition to which we have alluded.

The odds quoted just before the race upon the horses entered for the Oaks Stakes,[*] May, 1828, were so enormous, that the corresponding probability of one of the first seven favourites winning, was $1 + \frac{31}{336}$, exclusive of the winner and six others which started.

14. Although it is easy in similar cases to see whether or not to *back the field*, it is not possible to determine the proportions which should be betted against each event in order that the advantage may be the greatest, unless the probabilities of each are known ; and it may be observed, that the odds offered and taken will sometimes depend upon the incertitude of the better, whether or not he will receive the amount of his wager in case of a favourable issue. This chance enters as legitimately into the estimation of the odds as any other, though it may be more difficult to estimate its influence. It may also happen that the odds will be affected by those who, having almost secured a certain advantage in the manner we have just described, will prefer to diminish that advantage by offering more than the real odds against the events which yet remain out of their list, rather than leave any contingency unprovided against. But this last consideration verges on a branch of the subject which we shall afterwards treat more in detail : sufficient reason has been given why, practically, the odds vary so much from the result of a theory, which has not estimated these causes of discrepancy.

15. Let P_1, Q_1 represent two conflicting events.

P_2, Q_2 any other two conflicting events.

and let $\left.\begin{array}{c} m_1 \\ m_2 \\ n_1 \\ n_2 \end{array}\right\}$ be the number of cases favourable to the event $\left\{\begin{array}{c} P_1 \\ P_2 \\ Q_1 \\ Q_2 \end{array}\right.$

P_1 cannot happen with Q_1, nor P_2 with Q_2 : the whole number of cases possible, therefore, is $(m_1 + n_1)(m_2 + n_2.)$ Of these

$\left.\begin{array}{cc} m_1 & m_2 \\ m_1 & n_2 \\ n_1 & m_2 \\ n_1 & n_2 \end{array}\right\}$ are favourable to the production of the event $\left\{\begin{array}{c} (P_1 \ P_2) \\ (P_1 \ Q_2) \\ (Q_1 \ P_2) \\ (Q_1 \ Q_2) \end{array}\right\}$ that is, of the events $\left\{\begin{array}{c} P_1, \ P_2 \\ P_1, \ Q_2 \\ Q_1, \ P_2 \\ Q_1, \ Q_2 \end{array}\right.$

simultaneously, and therefore by previous definition

$\left.\begin{array}{c} \dfrac{m_1 \ m_2}{(m_1 + n_1)(m_2 + n_2)} \\[2ex] \dfrac{m_1 \ n_2}{(m_1 + n_1)(m_2 + n_2)} \\[2ex] \dfrac{n_1 \ m_2}{(m_1 + n_1)(m_2 + n_2)} \\[2ex] \dfrac{n_1 \ n_2}{(m_1 + n_1)(m_2 + n_2)} \end{array}\right\}$ is the probability of the event $\left\{\begin{array}{c} (P_1, P_2) \\[2ex] (P_1, Q_2) \\[2ex] (Q_1, P_2) \\[2ex] (Q_1, Q_2) \end{array}\right.$

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* Betting for the Oaks, Morning Chronicle, May 24, 1828.

5 to 2 against Ridicule.   14 to 1 against L'Estelle.
5 . 2 .. Zoe.   15 . 1 .. Ruby.
4 . 1 .. Rosalie.   25 . 1 .. Turquoise, who won.
7 . 1 .. Trampoline.   6 others started.
14 . 1 .. Delta.

$$\left.\begin{array}{c} \dfrac{m_1}{m_1 + n_1} \\[2ex] \dfrac{m_2}{m_2 + n_2} \end{array}\right\} \text{ is the probability of the event } \left\{\begin{array}{c} P_1 \\[2ex] P_2 \end{array}\right\} \text{ considered by itself,}$$

and as P_1, P_2 may represent any independent events whatever, we conclude that the probability of the concurrence of any two independent events is equal to the product of the probabilities of each considered separately.

It is easy to extend the same theorem to any number of independent events: for we may consider the event (P_1, P_2) as one event of which the probability is $\dfrac{m_1 m_2}{(m_1 + n_1)(m_2 + n_2)}$, and if $\dfrac{m_3}{m_3 + n_3}$ be the probability of any other independent event P_3, the probability of the concurrence of (P_1, P_2) and P_3 or (P_1, P_2, P_3) is equal to

$$\dfrac{m_1 m_2}{(m_1 + n_1)(m_2 + n_2)} \times \dfrac{m_3}{m_3 + n_3},$$

or $\dfrac{m_1 m_2 m_3}{(m_1 + n_1)(m_2 + n_2)(m_3 + n_3)}$; but $\dfrac{m_1}{m_1 + n_1}$, $\dfrac{m_2}{m_2 + n_2}$, and $\dfrac{m_3}{m_3 + n_3}$, are the probabilities of the events P_1, P_2, P_3, considered separately.

The same reasoning may be extended to any number of independent events, and hence this general and important theorem: the probability of the concurrence of any number of independent events is equal to the product of the probabilities of each considered separately. Before we proceed farther, it may be well to illustrate this by an example.

Ex. 8. Let us assume p_1 to be the veracity of any witness A_1, or the probability that A_1 tells the truth; p_2 the veracity of any other witness A_2. A_2 asserts that A_1 has asserted that a certain event took place; what is the probability that it did take place?

The event took place, if both A_1 and A_2 tell the truth; the probability of this is $p_1 \times p_2$.

It also took place if both A_1 and A_2 lie, that is, if A_1 said it did not take place, and if A_2 says that A_1 said it did take place: the probability of this is $(1 - p_1)(1 - p_2)$; and the probability that the event did take place, is $p_1 p_2 + (1 - p_1)(1 - p_2)$, or $1 - p_1 - p_2 + 2 p_1 p_2$.

Suppose, for instance, p_1 and p_2 were equal to $\frac{9}{10}$ths, the probability that the event took place which A_1, on the authority of A_2, asserts to have taken place, would be $\frac{82}{100}$ths, a probability which is considerably less than $\frac{9}{10}$ths.

The same might be extended to any number of testimonies; and it is thus that events, probable in the first instance, by passing through many relaters, may at last become extremely improbable. Laplace compares this diminution of probability to the diminution of light in passing through a succession of transparent mediums: the analogy does not strike us as being very forcible.

16. Since the odds are inversely as the probabilities of the events, whenever the odds in favour of two independent events are known, the odds that they will both happen may be found.

Ex. 9. In May, 1828, the odds were 3 to 1 against Rapid Rhone winning the Gold Cup, and 6 to 1 against Bessy Bedlam winning the St. Leger. According to these odds, the probability of Rapid Rhone winning the Gold Cup is $\frac{1}{4}$, and of Bessy Bedlam winning the St. Leger is $\frac{1}{7}$. Therefore, the probability of both these events taking place is $\frac{1}{28}$, and the odds against it 27 to 1, or about 1000 to 37. The odds were given at 1000 to 60.

It may be remarked that if the *same* horse as Rapid Rhone were to r in both races, and if the probability of his winning the first race were ⅓, a of his winning the second ¼; the probability of his winning both is not ¹⁄₁₂ but rather more. This very important distinction will be more fully explained in treating of probabilities *à posteriori*.

17. Let P_n, Q_n be any two conflicting events, of which the probabilities are p_n, q_n.

The probability of the concurrence of all the events $P_1, P_2 \ldots P_n$ is $p_1 \times p_2 \ldots p_n$, and the probability of any other event is that term in the product

$$(p_1 + q_1)(p_2 + q_2) \ldots (p_n + q_n);$$

in which the indices of p and q are the same as those of P and Q in the composite event which is considered.

If we consider repeated trials of the same event, so that $P_1, P_2 \ldots P_n$ are all the same, $(p_1 + q_1)(p_2 + q_2) \ldots (p_n + q_n)$ becomes $(p + q)^n$, and the probability of any event composed of a times P and b times Q in any given order is $p^a q^b$, the probability of having a times P and b times Q, without any regard to the order in which they occur, is the sum of the terms which are equal to $p^a q^b$ in the developement of $(p + q)^n$, or, what is the same thing, the term which has $p^a q^b$ for its argument in the expansion of $(p + q)^n$.

By the binomial theorem, this term is $\dfrac{n \cdot (n-1) \ldots \ldots \ldots \ldots 1}{1 \cdot 2 \cdot 3 \ldots a \ldots 1 \cdot 2 \cdot 3 \ldots b} \times p^a q^b$.

Ex. 10. Thus, if n shillings are thrown into the air, in order to find what is the probability of any particular combination, it is only necessary to take the corresponding term in the developement of $\left\{\dfrac{1}{2} + \dfrac{1}{2}\right\}^n$.

Suppose there are five shillings

$$\left\{\frac{1}{2}+\frac{1}{2}\right\}^5 = \left(\frac{1}{2}\right)^5 + 5\cdot\left(\frac{1}{2}\right)^5 + \frac{5\cdot4}{1\cdot2}\left(\frac{1}{2}\right)^5 + \frac{5\cdot4}{1\cdot2}\left(\frac{1}{2}\right)^5 + 5\cdot\left(\frac{1}{2}\right)^5 + \left(\frac{1}{2}\right)^5.$$

The probability that they will all fall heads $= \left(\dfrac{1}{2}\right)^5$

$$\text{4 heads and 1 tail} = 5 \times \left(\frac{1}{2}\right)^5$$
$$\text{3 heads and 2 tails} = 10 \times \left(\frac{1}{2}\right)^5$$
$$\text{2 heads and 3 tails} = 10 \times \left(\frac{1}{2}\right)^5$$
$$\text{1 head and 4 tails} = 5 \times \left(\frac{1}{2}\right)^5$$
$$\text{5 tails} = \left(\frac{1}{2}\right)^5$$

18. The same theorem may be extended to any number of conflicting events, so that if P, Q, R, S represent any conflicting events of which the probabilities are p, q, r, s, respectively, the probability of the event which is composed of a times P, b times Q, c times R, d times S, &c. in $a + b + c + d$ repeated trials is the term in the expansion of $(p+q+r+s)^{a+b+c+d}$, which has $p^a q^b r^c s^d$ for its argument; by the multinomial theorem this term is

$$\frac{(a+b+c+d)(a+b+c+d-1)\ldots\ldots 3\cdot2\cdot1}{1\cdot2\cdot3\ldots a\; 1\cdot2\cdot3\ldots b\; 1\cdot2\cdot3\ldots c\; 1\cdot2\cdot3\ldots d}p^a q^b r^c s^d.$$

Ex. 11. Let a jury be composed of n jurymen, and let p be the probability each juryman separately will give a right decision, q the probability that he give a wrong decision. The probability of a unanimous verdict, that is, they all will voluntarily give a wrong or all a right decision, is $\dfrac{p^n + q^n}{(p+q)^n}$:

$=\dfrac{9}{10}$, $q = \dfrac{1}{10}$ and $n = 12$, this is equal to $\frac{282429536482}{1000000000000}$, or about $\frac{4}{18}$. This probability must not be confounded with the probability, after an unanimous decision has been given, that it is a correct one, which is a very different question.

Ex. 12. Let A and B be two gamesters, and let p be the probability of A's winning a game, and q the probability of B's winning a game; required probability of A's winning m games out of $m + n$, the set being supposed to finish as soon as A has won m games.

The probability of A's winning the first m games running, is p^m. The probability of A's winning m games out of $m + 1$, is $(m + 1)\, p^m q$. The probability of A's winning the first m games, and B the $(m + 1)^{th}$ out of $m + 1$ games, is $p^m q$; therefore, the probability of A's winning the set in exactly $m + 1$ games is $(m + 1)\, p^m q - p^m q$, or $(m + 1 - 1)\, p^m q$ $= m\, p^m q$, and the probability of A's winning the set in not more than $m + 1$ games is $p^m + m\, p^m \cdot q$.

The probability of A's winning m games out of $m + 2$, in any order, is

$$\frac{(m + 2) \cdot (m + 1)}{1 \cdot 2}\, p^m q^2,$$

but the probability of A's winning m games in the first $m + 1$ is $(m + 1) \cdot p^m q$, and the probability of B's winning the $(m + 2)^{th}$ game is therefore, the probability of A's winning m games in the first $m + 1$ out of $m + 2$ games is $(m + 1) \cdot p^m q^2$; and the probability of A's winning the set exactly in $m + 2$ games is

$$\left\{\frac{(m + 2) \cdot (m + 1)}{1 \cdot 2} - (m + 1)\right\} p^m q^2 = \frac{m \cdot (m + 1)}{1 \cdot 2}\, p^m q^2;$$

and the probability of A's winning the set in not more than $m + 2$ games is

$$p^m + m\, p^m q + \frac{m \cdot (m + 1)}{1 \cdot 2}\, p^m q^2.$$

The same reasoning may be applied to the general term : thus the probability that A will win m games out of $m + n$ in any order

$$= \frac{(m + n) \cdot (m + n - 1) \ldots 2 \cdot 1}{1 \cdot 2 \ldots m \cdot 1 \cdot 2 \ldots n}\, p^m \cdot q^n.$$

The probability that A will win m games out of $m + n - 1$, and that B will win the $(m + n)^{th}$

$$= \frac{(m + n - 1) \cdot (m + n - 2) \ldots 2 \cdot 1}{1 \cdot 2 \ldots m \cdot 1 \cdot 2 \ldots (n - 1)}\, p^m \cdot q^n.$$

Therefore the probability that A will win m games in exactly $m + n$ times

$$= \frac{(m + n - 1) \cdot (m + n - 2) \ldots 2 \cdot 1}{1 \cdot 2 \ldots m \cdot 1 \cdot 2 \ldots (n - 1)}\left\{\frac{m + n}{n} - 1\right\} p^m q^n$$

$$= \frac{m \cdot (m + 1) \ldots (m + n - 1)}{1 \quad 2 \quad \ldots \ldots n}\, p^m q^n.$$

and the probability of A's winning the set in not more than $m + n$ g[...]
will appear to be

$$p^m \left\{ 1 + m q + \frac{m \cdot (m + 1)}{1 \cdot 2} q^2 \ldots \frac{m \cdot (m + 1) \cdot (m + 2) \ldots (m + n - 1)}{1 \cdot 2 \cdot 3 \cdot \ldots n} \right.$$

If A, in order to win the set, must win m games before B wins n ga[...]
A must win m games out of $m + n - 1$, and the probability of this even[...]

$$p^m \left\{ 1 + m q + \frac{m \cdot (m + 1)}{1 \cdot 2} q^2 \ldots \frac{m \cdot (m + 1) \cdot (m + 2) \ldots (m + n - 2)}{1 \cdot 2 \cdot 3 \ldots (n - 1)} q^{n-1} \right\}$$

and the probability of B's winning n games out of $m + n - 1$ is

$$q^n \left\{ 1 + n p + \frac{n \cdot (n + 1)}{1 \cdot 2} p^2 \ldots \frac{n \cdot (n + 1) \cdot (n + 2) \ldots (n + m - 2)}{1 \cdot 2 \ldots 3 \quad (m - 1)} p^{m-1} \right\}$$

The same result may be obtained from the following considerations. I[...]
the play be supposed to continue without end, the probability that A wi[...]
gain a single game

$$= p + p q + p q^2 + \ldots \infty = \frac{p}{1 - q}, \text{ or } 1,$$

and the probability that A will win any finite number of games as m will b[...]

represented by $\left(\dfrac{p}{1 - q} \right)^m$

$$= p^m \left\{ 1 + m q + \frac{m \cdot (m + 1)}{1 \cdot 2} q^2 + \ldots \infty \right\}.$$

This probability is made up of the partial probabilities that A will win m
games in m exactly, in $m + 1$ exactly, &c. The probability that A will win
m games in $m + x$ exactly must have $p^m \cdot q^x$ for its argument, and, there-
fore, since the above-written series contains all these partial probabilities,
and no others, and consists solely of terms whose arguments are of the form
$p^m \cdot q^x$, each of these partial probabilities will be rightly represented by the
corresponding term in that series, for it can be exhibited in no other shape,
having the arguments of all its terms of this necessary form. Therefore the
probability that A will win m out of $m + n$ games consists of the first terms
of that series up to that inclusively, whose argument is $p^m \cdot q^n$, the same as
before obtained.

If A wants m games of being up, and B n games, and they agree to leave
off playing, the stakes should be divided between them in the proportions of
their probabilities.

This problem is celebrated in the history of the theory of probabilities,
and was the first of any difficulty which was solved. It was proposed to
Pascal by the Chev. de Méré, with some others relating to games with dice.

Ex. 13. A bag contains $n + 1$ balls which are marked by the numbers
$0 . 1 . 2 . 3 \ldots n$, a ball is drawn and afterwards replaced in the bag. Required
the probability that after i drawings the sum of the numbers drawn is equal
to s.

A little consideration will show that the probability required will be the
coefficient of x^s in the expansion of $\left\{ \dfrac{x^0 + x^1 + x^2 \ldots + x^n}{n + 1} \right\}^i$ because that
coefficient will be made up of all the different ways in which the different
indexes of x can be combined in this developement, so as to equal the
required index s.

$$x^0 + x^1 + x^2 \ldots\ldots + x^n = \frac{1 - x^{n+1}}{1 - x}$$

$$-x^{n+1}\bigg\}^i = 1 - i\,x^{n+1} + \frac{i.(i-1)}{1.2}x^{2(n+1)} - \frac{i.(i-1).(i-2)}{1.2.3}x^{3(n+1)} + \&c.$$

$$\big\{1 - x\big\}^{-i} = 1 + i\,x + \frac{i.(i+1)}{1.2}x^2 + \frac{i.(i+1).(i+2)}{1.2.3}x^3 + \&c.$$

ıe coefficient of x^s is obtained by multiplying the coefficient of the first of the upper series by the coefficient of x^s in the lower, that of the nd in the upper by that of x^{s-1} in the lower, &c. and

$$\frac{i.(i+1)(i+2)\ldots(i+s-1)}{1.2.3\ldots s(n+1)^i} - i\,\frac{i.(i+1).(i+2)\ldots(i+s-n-2)}{1.2.3\ldots(s-n-1)(n+1)^i}$$

$$\vdash \frac{i.(i-1)}{1.2}\,\frac{i.(i+1).(i+2)\ldots(i+s-2n-3)}{1.2.3\ldots(s-2n-2)}(n+1)^i\ \&c$$

his series is equivalent to

$$\frac{1).(s+2)\ldots(s+i-1)}{\ldots\ldots(i-1)(n+1)^i} - i\,\frac{(s-n).(s-n+1)\ldots(s-n+i-2)}{1.2\ldots\ldots(i-1)(n+1)^i}$$

$$\vdash \frac{i.(i-1)}{1.2}\cdot\frac{(s-2n-1).(s-2n)\ldots(s-2n+i-3)}{1.2\ldots\ldots(i-1)(n+1)^i}\ \&c.$$

is to be remarked, that all the terms of the developement of $(1 - x^{n+1})^i$ hich x is involved to a higher power than s may be rejected, because we : no negative powers of x in the other factor $(1 - x)^{-i}$ by which to ce them.

his serves to show how many terms of the resulting series are to be n, for if l represent the rank of the last term, we must have $(l - 1)$ - 1) $= < s$. Therefore the series is to be continued only so long as $(l - 1).(n + 1)$ is positive. As a numerical example, we may take problem already solved in page 4, to find the chance of throwing 7 with dice. Dice have no side marked with 0, therefore, before the formula be applied to this and similar cases, each face or ball must be supposed nport one less than is marked on it, which amounts to substituting in formula $s - n$ for s. We shall, however, not substitute in the formula ltered, but deduce its value in the particular case, as we have done in general one.

he probability required will be the coefficient of x^7 in

$$\left\{\frac{x^1 + x^2 + x^3 + x^4 + x^5 + x^6}{6}\right\}^2 = \left\{\frac{x - x^7}{6.(1-x)}\right\}^2$$

$$= \frac{1}{36}(x^2 - 2x^8 + x^{14})(1 + 2x + 3x^2 + 4x^3 + 5x^4 + 6x^5 + \&c.)$$

ch is $\frac{6}{36} = \frac{1}{6}$ as before.

f we want the probability of throwing 10 with three dice, we must find coefficient of x^{10} in

$$\left\{\frac{x^1 + x^2 \ldots + x^6}{6}\right\}^3 = \left\{\frac{x - x^7}{6.(1 - x)}\right\}^3$$

$$= \frac{1}{216}(x^3 - 3x^9 + \&c.)(1 + 3x + 6x^2 \ldots + 36x^7 + \&c.)$$

which is $\dfrac{36-9}{216}=\dfrac{1}{8}$, the required probability.

19. If we give to s the different values $0, 1, 2,\ldots s$, successively, the [sum?]
of all the $s+1$ resulting series will of course be the probability that the [sum?]
of the numbers drawn will not be greater than s. In the last example, if [we]
collect the coefficients of all the terms to x^{10} inclusive, we shall find the pro-
bability of not throwing more than 10 with three dice. It appears to be

$$\frac{1+3+6+10+15+21+28+36-3-9}{216}=\frac{108}{216}=\frac{1}{2}$$

This probability is the foundation of the game of *Passe dix*.

20. If, instead of thus giving to s values which are increased by unity
each step, we suppose that s may have any value whatever between 0 and
s, the probability must be estimated according to the rules of continually
varying quantities. The result in that case will be found identical with that
given by our series, if in it we suppose s and n both infinite. The series
then becomes

$$\frac{1}{1.2\ldots(i-1)\,n}\left\{\left(\frac{s}{n}\right)^{i-1}-i\left(\frac{s}{n}-1\right)^{i-1}+\frac{i.(i-1)}{1.2}\left(\frac{s}{n}-2\right)^{i-1}-\&c.\right\}$$

and the sum of all these series will be found by integrating this expression
between the limits 0 and s, which gives

$$\frac{1}{1.2\ldots i}\left\{\left(\frac{s}{n}\right)^{i}-i\left(\frac{s}{n}-1\right)^{i}+\frac{i.(i-1)}{1.2}\left(\frac{s}{n}-2\right)^{i}-\&c.\right\},$$

the last or l^{th} term here being the last in which $\dfrac{s}{n}-(l-1)$ is positive.

This taken between the proper limits will give the probability that the
sum of the numbers drawn is contained between those limits.

21. Laplace applies this equation, *Théorie Anal. des Prob.* p. 257, to
finding the probability that the sum of the inclinations of the orbits of the
planets would be contained within given limits, if all inclinations were simi-
larly circumstanced.

There are 10 planets besides the Earth, namely, Mercury, Venus, Mars,
Pallas, Juno, Ceres, Vesta, Jupiter, Saturn, and Uranus; therefore, $i=10$
and the sum of their inclinations to that of the Earth at the beginning of
1801 was $82° 16' 36''$, therefore

$$\frac{s}{n}=\frac{82\cdot27683}{90}=\cdot914187.$$

Retaining only the first term of the preceding expression, because
$\dfrac{s}{n}-1$ is negative, the probability that the sum of the inclinations of the
orbits of the planets would be comprised between the limits zero and
$82°\cdot27683$, if all inclinations were similarly circumstanced, is

$$\frac{1}{1.2.3\ldots10}\cdot(\cdot914187)^{10}=\cdot00000011235.$$

The question we have just solved is nearly the same as to determine the
probability of the losses of an insurance company upon i policies upon
persons of the same age being contained within certain limits.

22. A shilling is tossed into the air; B gives A a certain sum, in considera-
tion of which A engages to pay B 2 pounds if the shilling falls head the first
time; 4 pounds if it falls head the second time, and not before; 2^n pounds
if it falls head the nth time, and not before.
The expectation of B is

$$2 \times \frac{1}{2} + 4 \times \frac{1}{4} + 8 \times \frac{1}{8} \therefore \ldots + 2^n \times \frac{1}{2^n} = \pounds n.$$

This is called the Petersburg problem, probably from the mention made
of it by Daniel Bernoulli in the Transactions of the Petersburg Academy;
it was first proposed by Montmort in the Analyse des Jeux de Hasard, and
has been generally considered as involving a great paradox, because if it is
agreed that the game shall not be discontinued till the shilling falls head, n
must be made infinite, and the expectation of B is infinite; still no man of pru-
dence would be disposed to venture even a small part of his fortune at this
game. On account of the celebrity of this problem we have inserted it, but
there is nothing paradoxical in the result more than in any other case of *long
odds:* it shows, however, that in order to estimate the value of a contingent
advantage to an individual, other elements must be considered, and that the
moral expectation, as it is called, to distinguish it from the mathematical
expectation, depends on a great many circumstances which it is very difficult
to submit to calculation.

23. It is evident that the value of any sum is much greater to an indi-
vidual who lives by his daily labour and is without any capital, than it is to
an individual possessed of £100,000; we may, therefore, meet this difficulty
by supposing that the value of a given sum to any individual, is proportional
to and may be represented by that sum, divided by the whole of the fortune
which he possesses.
Let a be the sum A is to pay B on the event of which the probability is p,
b . . . . B . . . . A . . . . q,
and let f be the fortune possessed by A. On the preceding hypothesis the
expectation of A is

$$\frac{bq}{(f+b)} - \frac{ap}{(f-a)}.$$

If $bq = ap$, which must be the case in order that the wager may be *fair*,
the expectation of A will be $> = < 0$ as

$$\frac{1}{f+b} - \frac{1}{f-a} > = < 0$$

$$f - a > = < f + b, \text{ or } a + b < = > 0;$$

a and b are both necessarily positive, therefore $a + b > 0$. It is, therefore,
evident that according to this theory of the value of money, a wager under
the most favourable circumstances consistent with honesty, injures the for-
tune of the gamester, because he loses more by losing than he can gain by
gaining any wager, since the amount of it must be compared in the former
case with his diminished, in the latter, with his augmented fortune.

24. Suppose the fortunes of A and B to be both equal to f, the expectation

of A is

$$\frac{bq}{(f+b)} - \frac{ap}{(f-a)},$$

of B is

$$\frac{ap}{(f+a)} - \frac{bq}{(f-b)}.$$

In order that the expectations of A and B may be equal

$$\frac{b\,q}{(f+b)} - \frac{a\,p}{(f-a)} = \frac{a\,p}{(f+a)} - \frac{b\,q}{(f-b)}$$

$$\frac{2\,f\,a\,p}{f^2-a^2} = \frac{2\,f\,b\,q}{f^2-b^2} \quad \frac{a}{b} = \frac{q}{p} \cdot \frac{f^2-a^2}{f^2-b^2}$$

$\frac{a}{b} > = < \frac{q}{p}$ as $f^2-a^2 > = < f^2-b^2$, as $b > = < a$; therefore if $a > b$,

that is, if $p < q$, (a and b are the odds) a is not so much greater than b, as it would be if the moral expectation were not taken into account. In practice we believe this is always the case, as the reader may have observed in the example we took, page 9.

Ex. 14. Let p be the probability of a vessel coming into port, q the probability of a total loss, a the value of that part of the cargo in any vessel, which belongs to A, let there be n vessels, and f, as before, A's fortune. The mathematical value of A's expectation, the $n\,a$ goods being equally distributed over n vessels, is

$$n\,a\,p^n + (n-1)\,a\,n\,p^{n-1}\,q + (n-2)\,a \cdot \frac{n\,(n-1)}{1 \cdot 2}\,p^{n-2}\,q^2 + \&c.$$

$$= n\,a\,p\,\{p+q\}^{n-1} = n\,a\,p, \text{ since } p+q=1,$$

which is the same as if they were all on board the same vessel; but, on the preceding hypothesis, the value of A's expectation is

$$n\,a\,\frac{p^n}{f+n\,a} + (n-1)\,a \cdot \frac{n\,p^{n-1}\,q}{f+(n-1)\,a} + (n-2)\,a \cdot \frac{n \cdot (n-1)}{1 \cdot 2}$$

$$\frac{p^{n-2}\,q^2}{f+(n-2)\,a} + \&c.$$

Where every denominator but the first is less than $(f + n\,a)$, and, therefore, this series is greater than the sum of the numerators divided by $(f + n\,a)$, that is, greater than $\dfrac{n\,a\,p \cdot (p+q)^{n-1}}{f+n\,a}$, that is, than $\dfrac{n\,a\,p}{f+n\,a}$.

The value of A's expectation is, therefore, greater than $\dfrac{n\,a\,p}{f+n\,a}$, which is the value of his expectation when all his goods are on board the same vessel.

This principle of the distribution of risk is well known to every merchant, and, in fact, affords him all the advantages derived from insurance. It is on this principle that the East India Company never insure their vessels.

The hypothesis we have adopted in the preceding problems was suggested by the celebrated naturalist, Buffon.

25. Daniel Bernoulli supposes that the value of the fortune of any individual is made up of an infinite number of indefinitely small elements, the value of each of which is inversely as the capital already formed, so that if ϕ represent a small element of the fortune f, and f_1, f_2 &c., its successive amounts, the value of the whole fortune f will be

$$\frac{k\,\phi}{f_1} + \frac{k\,\phi}{f_2} + \cdots\cdots + \frac{k\,\phi}{f-\phi} \quad k \text{ being some constant quantity.}$$

When ϕ is indefinitely diminished, this series $= k \log. \left(\dfrac{f}{f_1}\right)$. The divisor

f_1 denotes that part of the fortune of the individual which is absolutely available, and below which his fortune cannot sink. This theory affords

solutions to the problem preceding, and similar problems analogous to those obtained on the supposition of Buffon.

We shall not dwell longer on this subject, as these hypotheses, although they may serve, in some measure, to show the difference which exists between the mathematical value of any sum and its value in practice, are quite arbitrary.

26. The search after a method of enabling a gamester to win with certainty from his antagonist, who has a greater probability in his favour, has wasted as much ingenuity as the attempt to discover perpetual motion. At all gaming tables an advantage is given by the laws of the game to the banker; and many infatuated persons, in the vain hope of detecting some scheme for rendering that advantage nugatory, have spent years in registering the course of the play with a degree of patient industry which, exerted in another direction, might have made them useful and distinguished members of society. One favourite scheme is so celebrated as to have acquired a particular name; it is called the Martingale, or Double or Quits, and consists in doubling the last stake after every loss. In order that this may be permanently successful, the player requires not only an immense capital, but an unlimited permission of staking. It is not very easy to show mathematically the amount of the player's expectation who uses the martingale, on account of the various order in which the gains and losses may be supposed to follow each other; instead of attempting it, we shall give an analysis of another scheme, in which the same difficulty does not occur. This consists in increasing the stake by a fixed sum after every loss, and diminishing it by the same after every gain. The inventors of this mode of betting looked upon it as infallible, and indeed there is something in it which might easily deceive the unwary; for it can be shown, that if the number of games won and lost be the same, no matter in what order this takes place, the result is always a gain to the player who bets upon this principle. Notwithstanding this specious circumstance, we shall show that the value of the player's expectation of gain, when his probability of winning a single game exceeds $\frac{1}{2}$, is never so great as his expectation of loss when this probability falls short of $\frac{1}{2}$ by the same quantity.

27. Let a be the original stake, b the quantity by which it is increased or diminished after every loss or gain, $m + n$ the whole number of games played. The first thing to determine is the player's gain who wins m and loses n games.

His first stake $= a$, therefore his first gain $= \pm a$, and may be represented generally by $a(-1)^\alpha$ which becomes $\pm a$ as α is even or odd. If he wins, i. e. if α be even, his second stake is $a - b$, and it is $a + b$ if he loses, i. e. if α be odd: therefore his second stake generally is $a - b(-1)^\alpha$ and his second gain may be represented in the same general manner by $\{a - b(-1)^\alpha\}(-1)^\beta$. For the same reason his third stake will be $a - b(-1)^\alpha - b . (-1)^\beta$, and therefore his third gain is $\{a - b((-1)^\alpha + (-1)^\beta)\}(-1)^\gamma$, and so on.

We have, therefore, the following table of gains:

$$\text{1st gain} = a(-1)^\alpha,$$
$$\text{2d} \quad = a(-1)^\beta - b\{(-1)^\alpha\}(-1)^\beta,$$
$$\text{3d} \quad = a(-1)^\gamma - b\{(-1)^\alpha + (-1)^\beta\}(-1)^\gamma,$$
$$\text{4th} \quad = a(-1)^\delta - b\{(-1)^\alpha + (-1)^\beta + (-1)^\gamma\}(-1)^\delta,$$
$$\&c. \qquad \&c. \qquad \&c.$$

There are $m + n$ stakes, and we have determined nothing of the quantities α, β, γ, &c. except that m are even, and n odd, because by supposition the player wins m games, and loses n. Therefore m of the quantities $(-1)^\alpha$

$(-1)^{\beta}$, &c. will each $= +1$, and the remaining n each $= -1$. The coefficient of a in the sum of the gains is the sum of all these quantities, and therefore $= m - n$. The coefficient of b is the sum of the products of them all two by two, and therefore is equal to the coefficient of the third term of an equation which has m roots $= +1$, and n roots $= -1$, i. e. of $(x-1)^m (x+1)^n$, i. e.

$$= \frac{m \cdot (m-1)}{1 \cdot 2} - mn + \frac{n \cdot (n-1)}{1 \cdot 2} = \frac{(m-n)^2 - (m+n)}{2}.$$

Therefore, the player's gain $= (m-n) a + \dfrac{(m+n) - (m-n)^2}{2} b$; if

$m = n$ this reduces itself to $\dfrac{(m+n) b}{2}$, and it is plain that these results are

quite independent of the order in which the gains and losses follow each other. This very elegant solution was given by Mr. Babbage, in the Edinburgh Transactions for 1821 ; it remains now to estimate the player's expectation, whose probability of winning any single game $= p$. Let $m + n = i$.

The player's gain, if he wins m games, $= (m-n) a + \dfrac{m + n - (m-n)^2}{1 \cdot 2} b$

$$= - \left\{ i a + \frac{i(i-1)}{1 \cdot 2} b \right\} + 2 m \left\{ a + (i-1) b \right\} - 2 m \cdot (m-1) b, \text{ since}$$

$n = i - m$; and in order to get the player's expectation we must multiply this into the term of $\{ p + (1-p) \}^i$ of which the argument is $p^m \cdot (1-p)^{i-m}$, and take the sum of all those products; giving m, which is now the only variable, every value from 0 to i both inclusive. This product is

$$- \frac{i \cdot (i-1) \ldots \ldots 1}{1 \cdot 2 \ldots m \cdot 1 \cdot 2 \ldots n} p^m (1-p)^{i-m}$$

$$\times \left\{ \left\{ i a + \frac{i(i-1)}{1 \cdot 2} b \right\} - 2 m \left\{ a + (i-1) b \right\} + 2 m (m-1) b \right\}.$$

Therefore the sum of all the values of this product is

$\left\{ i a + \dfrac{i \cdot (i-1)}{1 \cdot 2} b \right\} \times$ the sum of all the values of .. $\left\{ \dfrac{i \cdot (i-1) \ldots \ldots 1}{1 \cdot 2 \ldots m \cdot 1 \cdot 2 \cdot n} p^m (1-p)^{i-m} \right\}$

$+ 2 \cdot \{ a + (i-1) b \} i p \times \ldots\ldots\ldots\ldots \dfrac{(i-1) \cdot (i-2) \ldots 1}{1 \cdot 2 \cdot (m-1) \cdot 1 \ 2 \cdot n} p^{m-1}(1-p)^{i-m}$

$- 2 b \cdot i \cdot (i-1) p^2 \times \ldots\ldots\ldots\ldots \dfrac{(i-2) \cdot (i-3) \ldots 1}{1 \cdot 2 \cdot (m-2) \cdot 1 \cdot 2 \cdot n} p^{m-2}(1-p)^{i-m}.$

When every value from 0 to i inclusive is given to m, the sums of all the values of these three right-hand factors, rejecting those in which the index of p is negative, severally become $\{ p + (1-p) \}^i$, $\{ p + (1-p) \}^{i-1}$, and $\{ p + (1-p) \}^{i-2}$, all equal to unity.

Therefore the sum of all the values of the products

$$= - \left\{ i a + \frac{i \cdot (i-1)}{1 \cdot 2} b \right\} + 2 i p \cdot \{ a + (i-1) b \} - 2 i (i-1) p^2 b$$

$$= i \cdot (2p-1) \cdot a - \frac{i \cdot (i-1)}{1 \cdot 2} (2p-1)^2 b.$$

If $p = \dfrac{1}{2} + x$, this expectation of gain $= 2 i x a - 2 i (i-1) x^2 b$, and

if $p = \dfrac{1}{2} - x$ the expectation of loss $= 2\,i\,x\,a + 2\,i\,(i-1)\,x^2\,b$. The expectation of a player, who is entirely ignorant of the value of p, is found by integrating the expression here found

$$\int \left\{ i\,a\,.\,(2p-1) - \frac{i.(i-1)}{1\,.\,2}\,b\,.\,(2p-1)^2 \right\} dp$$

$$= \frac{3\,i\,a\,.\,(2p-1)^2 - i\,.\,(i-1)\,.\,b\,.\,(2p-1)^3}{12}$$

and from $p = 0$ to $p = 1$, $= - \dfrac{i\,.\,(i-1)\,.\,b}{6}$.

It should be observed that this solution only applies to the case when there is a limiting equation between a and b, such that $a - (i-1)\,b > 0$, otherwise there might be a conjunction in the game, in which the player could not follow the rules of this scheme, and consequently would alter his expectation. If this be not attended to, the theorem supposes, what can never take place in practice, that the player has the power of reducing his stake below zero, that is, of taking his adversary's situation in some point of the game.

28. Let there be two conflicting events P and Q, of which the probabilities are p and q respectively, and let $m + n$ trials take place; the probability that the event P will happen m times, and the event Q, n times, without regard to the order in which they succeed each other, is

$$\frac{(m+n)\,.\,(m+n-1)\,\ldots\,2\,.\,1}{1\,.\,2\,\ldots\,m\,.\,1\,.\,2\,\ldots\,n}\,p^m\,.\,q^n,$$

which we shall represent by p_m. Similarly, the probability that the event P will happen $m + 1$ times and the event Q, $(n-1)$ times, is

$$\frac{(m+n)\,.\,(m+n-1)\,\ldots\,2\,.\,1}{1\,.\,2\,..\,(m+1)\,1\,.\,2\,..\,(n-1)}\,p^{m+1}\,.\,q^{n-1} = p_{m+1}.$$

If $p_{m+1} > p_m$, $\dfrac{p_{m+1}}{p_m} > 1$; $p > \dfrac{(m+1)\,.\,q}{n}$; and since $p + q = 1$,

$m > (m+n)\,p - q$, and this continues until $m = (m+n)\,p - q$, in which case $p_m = p_{m+1}$; and, since m must be a whole number, the greatest term in the developement of $(p+q)^{m+n}$ is that when $m = (m+n)\,p - q$, if $(m+n)\,p - q$ be a whole number, or, if not a whole number, the next greater.

Suppose, for instance, $p = \dfrac{2}{3}$ and consequently $q = \dfrac{1}{3}$, and let $m + n = 17$, m is $\dfrac{17 \times 2 - 1}{3}$, or $\dfrac{33}{3} = 1$; so that the most probable event, as compared with any other event which can occur in 17 trials, is a repetition of P 11 times, and Q 6 times.

If $m + n = 18$, m is the whole number next greater than $\dfrac{18 \times 2 - 1}{3}$, $= \dfrac{35}{3}$; which is 12, and the most probable event as compared with any other which can happen in 18 trials, is a repetition of P 12 times, and of Q 6 times.

When $m + n = \dfrac{w}{p}$, w being a whole number; since m is the next whole number greater than $(m+n) p - q$, and since $(m+n) p = w$, and q is necessarily a proper fraction, $(m + n) p$ or w is the next whole number greater than $(m + n) p - q$, and, therefore, $m = w = (m + n) p$, $n = (m + n)(1 - p)$ $= (m + n) q$; $\dfrac{m}{n} = \dfrac{p}{q}$, that is to say, the event most likely to happen is a combination in which the number of repetitions of p and q is proportional to the simple probability of the happening of each.

29. It is only as compared with any other single combination, that the one we have just mentioned increases in probability with the number of trials : if we estimate the abstract probability of the event corresponding with this *maximum* term, we shall easily find that it diminishes as the number of trials increases.

For this purpose let the maximum term in $m + n$ trials be represented by p_m, we have already seen that

$$p_m = \frac{(m + n).(m + n - 1) \ldots .2.1}{1.2 \ldots .. m .. 1.2 \ldots . n} \, p^m q^n,$$

where $m > = (m + n) p - q$, that is $> = (m + n + 1) p - 1$, and $< (m + n + 1) p$.

In one more trial

$$p_{m'} = \frac{(m + n + 1).(m + n) \ldots .2.1}{1.2 \ldots m' \ldots 1.2 \ldots n'} \, p^{m'}.q^{n'},$$

m' being limited in the same manner,

$$m' > = (m + n + 2) p - 1, \text{ that is } > m + p - 1,$$
$$< (m + n + 2) p, \qquad \text{that is } < m + p + 1,$$
$$\therefore \; m' \text{ is either } m \text{ or } m + 1.$$

If $m' = m$, $\quad \dfrac{p_{m'}}{p_m} = \dfrac{m + n + 1}{n + 1} q = \dfrac{n + 1 + m - (m + n + 1) p}{n + 1} < 1.$

If $m' = m + 1$, $\dfrac{p_{m'}}{p_m} = \dfrac{m + n + 1}{m + 1} . p = < 1,$

$\therefore$ in both cases, which will go on occurring successively, $p_{m'} = < p_m$.

30. There is, however, another probability connected with the most probable combination, which does increase continually with the number of trials, for it is always possible to assign a number of trials, such as to give any required probability that the difference between the ratio of the number of repetitions of the events, and the simple probabilities of the events, shall lie within any given limits. Thus, if there are 3 white balls in a bag, and 2 black balls, we can always assign a number of trials such as to give any probability as near as we please to certainty, that the difference between $\frac{3}{5}$ and the ratio of the number of white balls drawn to the number of black balls, shall lie between given limits, however near those limits may be assumed. This is a theorem of the highest importance in the theory of probability, and indeed, it is on the converse of it that the value of experience depends. We shall endeavour to prove it as shortly as possible, and it will facilitate this object if, instead of representing the simple probabilities by p and q, as we have hitherto done, we express them by the two fractions $\dfrac{a}{a + b}$ and $\dfrac{b}{a + b}$, in which a and b are both whole numbers.

31. The events of which the probabilities are $\dfrac{a}{a+b}$ $\dfrac{b}{a+b}$ would be repeated in $m(a+b)$ trials exactly ma and mb times, if they were combined in the ratio of their simple probabilities. Let us suppose that the number of times that the first will be repeated in the observed event lies between the limits $ma - m$ and $ma + m$, that is to say, that there will not be fewer than $ma - m$ and not more than $ma + m$ recurrences of that event in the $m(a+b)$ trials. The probability that this will be the case is the sum of the $2m + 1$ terms in the developement of $\left(\dfrac{a}{a+b} + \dfrac{b}{a+b}\right)^{m(a+b)}$ from the term whose argument is a^{ma-m} to the term whose argument is a^{ma+m}, both inclusive. We shall call these two last-mentioned terms the first and second limiting terms, and it is clear that the maximum term, the argument of which is a^{ma}, lies between them.

32. The whole series may thus be written out at length :

$$\left(\dfrac{a}{a+b} + \dfrac{b}{a+b}\right)^{m(a+b)} = p_{m(a+b)} + p_{m(a+b)-1} \cdots\cdots + p_{ma+m-1}$$

First limiting term.　　　　　　　Maximum.　　　　　Second limiting term.

$$+ p_{ma+m} \cdots + p_{ma+1} \bigg| + p_{ma} \bigg| + p_{ma-1} \cdots\cdots + p_{ma-m} \bigg|$$

Parcel of the first limit.　　　　　　　Parcel of the second limit.

$$+ p_{ma-m-1} \cdots\cdots\cdots\cdots\cdots + p_1 + p_0,$$

the index at the foot of p always denoting the power to which a is involved in that term. Our object is to show that the $2m + 1$ terms within the limits, may be made as many times greater than the rest of the series as we please; and we shall do this by showing that the first m of these $2m + 1$ terms, which we will call the parcel of the first limit, can be made as many times greater as we please than all which precede them, and the last m terms, or the parcel of the second limit, as many times greater as we please than all which follow them.

33. There are $mb - m$ terms which precede our first limit, which may be classed in $(b - 1)$ parcels, each containing m successive terms, and similarly the $ma - m$ terms, after the second limit, may be classed in $(a - 1)$ parcels, each containing m successive terms. As the maximum term p_{ma} is in the middle of our limits, and as the values of the terms increase from each end of the series up to the maximum term, the sum of all the $(b - 1)$ parcels before the first limit will be less than $(b - 1)$ times the parcel next before the first limit; and the sum of all the $(a - 1)$ parcels beyond the second limit will be less than $(a - 1)$ times the parcel next following the second limit. It is also plain, for the same reason, that the parcel of the first limit is greater than the parcel which immediately precedes the first limit, and, since the ratio of the maximum term to the first limiting term, or the ratio of p_{ma} to p_{ma+m}, is less than the ratio of any term in the parcel of the first limit, to the corresponding term in the parcel next preceding the first limit, (because these ratios continually approach nearer to a ratio of equality as they approach the maximum term,) it follows that the ratio of p_{ma} to p_{ma+m} is less than the ratio of the whole parcel of the first limit to the whole parcel immediately preceding it.

34. If, therefore, we can show that p_{ma} can, by a proper assumption of m, be made greater than $i.(b - 1)$ times p_{ma+m} however great i is taken, it will follow that this value of m will make the parcel of the first limit still

greater than $i.(b-1)$ times the parcel immediately preceding it, and very much greater than i times the sum of all the parcels which precede it. Exactly the same reasoning will show that if p_{ma} can be made greater than $i.(a-1)$ times p_{ma-m}, that is, $\dfrac{p_{ma}}{p_{ma-m}} > i.(a-1)$ the parcel of the second limit, will, with the same value of m, be more than i times greater than all the parcels which follow it.

35. Let a be that one of the quantities a and b, which is not the least. A value of m, which will make p^{ma} greater than $i.(a-1)$ times p_{ma-m} and than $i.(a-1)$ times p_{ma+m}, will evidently satisfy both the above-mentioned conditions.

$$\frac{p_{ma}}{p_{ma+m}} = \frac{(ma+1)..(ma+m)}{(mb-\{m-1\})..mb}\left(\frac{b}{a}\right)^m = \frac{(mab+b)..(mab+mb)}{(mab-\{m-1\}a)..mab}.$$

The last pair of factors here is $\dfrac{mab+mb}{mab}$, or $\dfrac{a+1}{a}$, and any other pair, such as the rth, is

$$\frac{mab+rb}{mab-(m-r)a}, \text{ which is } > \frac{a+1}{a},$$

if
$$mab+rb > (a+1)(mb-m+r),$$

that is, if
$$b < a+1,$$

which by supposition it is. Therefore

$$\frac{p^{ma}}{p_{ma+m}} > \left(\frac{a+1}{a}\right)^m,$$

for there are m factors in this continued product.

$$\frac{p_{ma}}{p_{ma-m}} = \frac{(mb+1)..(mb+m)}{(ma-\{m-1\})..ma}\left(\frac{a}{b}\right)^m = \frac{(mab+a)..(mab+ma)}{(mab-.\{m-1\}b)...mb}.$$

Any factor, as the rth, here

$$= \frac{mab+ra}{mab-(m-r).b}, \text{ which is } > = \frac{a+1}{a},$$

if
$$a^2(mb+r) > = (a+1).b(ma-\{m-r\}),$$

that is, if
$$ra(a-b) + (m-r).b > = 0,$$

which it must always be, for neither $a-b$, nor $m-r$, can ever become negative.

$$\therefore \frac{p_{ma}}{p_{ma-m}} > \left(\frac{a+1}{a}\right)^m. \text{ Assume } \left(\frac{a+1}{a}\right)^m = i.(a-1),$$

or
$$m = \frac{\log. i + \log. (a-1)}{\log. (a+1) - \log. a},$$

and with this value of m both the necessary conditions are satisfied.

36. Therefore the probability

$$= \frac{\text{1st parcel} + \text{2d parcel} + a_m}{\text{1st parcel} + \text{2d parcel} + a_m + \text{sum of other parcels}},$$

or since 1st parcel + 2d parcel $> i.$(sum of other parcels)

$$= i \text{ (sum of other parcels)} + k,$$

ır probability

$$= \frac{i.(\text{sum of other parcels}) + k + a_m}{(i+1)(\text{sum of other parcels}) + k + a_m} > \frac{i}{i+1},$$

nce every proper fraction is diminished by taking the same quantity (in this stance $k + a_m$) from its numerator and denominator.

87. We thus have a probability, $> \frac{i}{i+1}$, that the number of recurrences

the event, whose probability is $\frac{a}{a+b}$, will, in $m.(a+b)$ trials, lie between

e numbers $(ma + m)$, $(ma - m)$, however great i be taken, and the limits the ratio of the number of repetitions of this event to the number of trials

e $\frac{ma+m}{m.(a+b)}$ and $\frac{ma-m}{m.(a+b)}$, or $\frac{a+1}{a+b}$ and $\frac{a-1}{a+b}$, the difference of which is

$\frac{2}{+b}$; and since the only restriction on the value of a and b is, that they

ust be in the proportion of p to q, we may increase $a + b$ at pleasure, and us bring the limits of this ratio as close as we please, and yet have a proba-

ity, $> \frac{i}{i+1}$, that the observed ratio will be between them. If all that is

quired is that there will not be fewer than $ma - m$ recurrences, the pro-bility clearly becomes much greater, as also the probability that there will t be more than $ma + m$.

It only remains to give an example to show fully how this theorem is plied.

Ex. 15. A bag contains three white balls and two black balls, from which a ll is repeatedly drawn and replaced. Required the number of trials in iich the odds will be at least 1000 to 1 that the ratio of the number of nes that a white ball is drawn to the whole number of drawings is not less

an $\frac{29}{50}$, and not greater than $\frac{31}{50}$.

The value of i is here 1000; $a = 30$, and $b = 20$.

$$\therefore m = \frac{\log. i + \log. (a-1)}{\log. (a+1) - \log. a} = \frac{\log. 1000 + \log. 29}{\log. 31 - \log. 30}$$

$$= \frac{4 \cdot 462398}{0 \cdot 0142404} > 313 < 314.$$

ıerefore we must take $m = 314$, and the number of trials $= m(a+b)$ 15700, in which number of drawings the odds will be more than 1000 to hat a white ball will have been drawn not less than $ma - m$, or 9106 ıes, and not more than $ma + m$, or 9734 times.

If the odds had been required to be at least 10,000 to 1, or 100,000 to 1, need only change the value of i, which gives, in the first case,

$$m = \frac{5 \cdot 462398}{0 \cdot 0142404} < 384 \text{ and } m(a+b) = 19200;$$

d in the second case,

$$m = \frac{6 \cdot 462398}{0 \cdot 0142404} < 454 \text{ and } m(a+b) = 22700,$$

which serves to show how much more rapidly the probability increases than the number of trials; for after the first 15,700 trials, the addition of 3500 new trials increases the odds tenfold, and 3500 more increases them tenfold again.

38. This highly important theorem is due to James Bernoulli, a celebrated mathematician of the last century, whose name it bears.

39. We have supposed known the number of favourable and unfavourable cases similarly circumstanced in the problems we have hitherto considered. Thus, in the problems relating to dice, we took for granted the form of the dice, and also their homogeneity.

40. However nearly any die may fulfil these given conditions, it will not do so strictly; and if we investigate the probability of any throw upon the principles hitherto developed, we obtain a result approximately correct, and of which the error depends on the inaccuracy of our hypothesis. The knowledge that a defect of homogeneity is possible, renders the return of the same face in several repeated trials more probable than it would be, if the die were known to be homogeneous. In tossing up a shilling, the probability of its falling heads, or the reverse, twice successively, is rather greater than $\frac{1}{4}$.

41. If such considerations apply to these very simple questions, it will readily be seen how difficult it is to estimate mathematically those probabilities which depend on more complicated circumstances; as the probability of an individual living a given number of years, or the probability of the truth of any assertion. Truths of definition are the only certain propositions. We shall not stop to inquire whether any limit separates truths of definition from propositions which rest upon experience; the distinction however may be admitted.

42. It is impossible to suppose that "*a part is greater than the whole*" without involving a contradiction to the sense in which the words forming this sentence are understood, so that the truth of the proposition, that "*a part is less than the whole*" results from the very definition of the words which compose this sentence. If on the other hand we consider the proposition that the sun will rise to-morrow; the number of times we believe the sun to have risen daily without interruption induces us to believe that the sun will rise again. Most of our opinions arise from our experience of the past, and rest upon probabilities of this kind.

43. In order to obtain mathematical solutions of problems similar to these we must revert to games of chance. Any problem in chances may be represented by throws with dice of different forms, or by drawings from bags containing balls of different colours. Nor is it any objection to the results we obtain by this means, that no dice can be formed which exactly fulfil the conditions we suppose them to do, any more than it is to the theorems in Euclid that the lines which compose the diagrams are not mathematically straight.

44. When our knowledge of the number of cases similarly circumstanced is imperfect, the probability of an event is still deduced upon the same principles as those hitherto developed. We have recourse to *hypotheses*, and having estimated their probability, the probability of any future event which depends on them, is easily deduced.

45. The probability of each hypothesis by definition is the number of cases which favour this hypothesis divided by the whole number of cases possible.

Ex. 16. Let us suppose a bag to contain three balls, and that we are uncertain whether of these balls two are black and one is white, or one is black and two are white, and that a white ball has been drawn.

Let us call these balls 1, 2, 3, and let us also suppose that the uncertainty

with respect to the colour of No. 2.

	No. 1.	No. 2.	No. 3.
1st hypothesis,	black,	black,	white.
2nd ,,		black,	white,	white.

In the first hypothesis No. 3 must have been drawn; we have, therefore, only one case which favours this hypothesis. On the second hypothesis, either No. 2 or No. 3 has been drawn, so that we have two cases which favour this hypothesis, and, therefore, the probabilities of these hypotheses respectively are $\dfrac{1}{1+2}$ and $\dfrac{2}{1+2}$, or $\dfrac{1}{3}$ and $\dfrac{2}{3}$.

In order to extend the principle of this reasoning to the general case, let us suppose that an event has been observed which must have resulted from one of a given number of causes. Let the probability of the existence of one of these causes have been estimated at P before the observed event took place, and let the probability of the observed event calculated upon the certitude of that cause be called p.

The probability that the event will happen in consequence of that cause = Pp, and the probability that the event will happen, without reference to any particular cause = $\Sigma.Pp$; extending the sign of summation to all the possible causes.

The probability that the event will happen in consequence of the selected cause, (or Pp), may be estimated in a different manner: it equals the product of the probability that it will happen, (or $\Sigma.Pp$), by the probability that if it does happen, it will be in consequence of that cause: the latter is evidently the probability of the selected cause derived from the observation.

Therefore the derived probability of that cause = $\dfrac{Pp}{\Sigma.Pp}$, which result may be stated in the following important theorem.

The probability of any hypothesis is the probability of the observed event upon this hypothesis multiplied by the probability of the hypothesis antecedently to the observation divided by the sum of the products which are formed in the same manner from all the hypotheses.

46. The probability antecedent to the observations under consideration is called the *à priori* probability; but in using this term it must be remembered that it is relative to a given epoch.

Ex. 17. Thus in the instance of a bag containing three balls, of which a white one has been once drawn and replaced. There are three possible suppositions: first, all three are white; second, two only are white; third, only one is white. On the first supposition the probability of the event observed is certainty or 1, on the second the probability is $\frac{2}{3}$, on the third it is $\frac{1}{3}$.

Therefore the probability of the first hypothesis $= \dfrac{1}{1 + \dfrac{2}{3} + \dfrac{1}{3}} = \dfrac{1}{2}$,

,, ,, second ,, $= \dfrac{\dfrac{2}{3}}{1 + \dfrac{2}{3} + \dfrac{1}{3}} = \dfrac{1}{3}$,

,, ,, third ,, $= \dfrac{\dfrac{1}{3}}{1 + \dfrac{2}{3} + \dfrac{1}{3}} = \dfrac{1}{6}$.

It is worth observing that these conclusions would not be affected by retaining all the four hypotheses which might have been made before the observation. For the probability of the observed event on the hypothesis we have rejected, namely, that all three balls are white, being $= 0$, the probability of the others will not be altered by including it also in the sum of probabilities which make up the denominator of the above-written fractions.

47. Let the ratio of the white balls to the whole number of balls be any of the following quantities,'

$$x \ldots\ldots\ldots 2x \ldots\ldots\ldots 3x \ldots\ldots\ldots ix,$$

let any of these hypotheses be equally probable *à priori*, and let a white ball have been drawn.

The probability of the event observed, namely, the drawing a white ball, on the first hypothesis is x, the *à priori* probability of this hypothesis is $\frac{1}{i}$, because there are i hypotheses equally probable; therefore the probability of this hypothesis is

$$\frac{\dfrac{x}{i}}{\dfrac{1}{i} \, x \, \{1+2+3\ldots i\}} = \frac{2}{i\,(i+1)}.$$

Similarly, the probability of the second hypothesis is $\dfrac{2 \times 2}{i\,(i+1)}$, of the third is $\dfrac{3 \times 2}{i\,(i+1)}$, and so on.

The probability of drawing a white ball in a future trial, after replacing the ball drawn, if the first hypothesis were the true one, would be x; the probability of this hypothesis is $\dfrac{2}{i\,(i+1)}$; therefore, the probability of drawing a white ball, considering only this hypothesis, is $\dfrac{2\,x}{i\,(i+1)}$

Similarly, considering the second hypothesis, the probability is $\dfrac{2\,x \times 2^2}{i\,(i+1)}$,

„ third „ $\dfrac{2\,x \times 3^2}{i\,(i+1)}$,

and the sum of all these, or the probability of drawing a white ball again, is

$$\frac{2\,x}{i\,(i+1)} \{1 + 2^2 + 3^2 \ldots\ldots\ldots + i^2\}.$$

In order to find the sum of this series, we shall employ a method of greater generality than is necessary in this particular case, because it furnishes the readiest method of summing a great many series of the same kind.

$$e^{x} = 1 + x + \frac{x^2}{1.2} + \&c.$$

$$e^{2x} = 1 + 2x + \frac{2^2 \times x^2}{1.2} + \&c.$$

$$= 1 + i x + \frac{i^2 x^2}{1.2} + \&c.$$

$1 + 2^2 + 3^2 \ldots + i^2$ is the coefficient of $\frac{x^2}{2}$ in $e^x + e^{2x} \ldots e^{ix}$,

    "   "   "   or $\dfrac{e^x (e^{ix} - 1)}{e^x - 1}$ or $\dfrac{e^{ix} - 1}{1 - e^{-x}}$,

    "   "   "   or $\dfrac{i + \dfrac{i^2 x}{2} + \dfrac{i^3 x^2}{6} + \&c.}{1 - \dfrac{x}{2} + \dfrac{x^2}{6} - \&c.}$

'e effect the division of $\dfrac{1}{1 - \dfrac{x}{2} + \dfrac{x^2}{6} - \&c.}$ the three first terms will be

d to be $1 + \dfrac{x}{2} + \dfrac{x^2}{12}$, and all beyond involve higher powers of x than

square, and therefore need not be considered. Multiplying $i + \dfrac{i^2 x}{2}$

$\dfrac{i^3 x^2}{6}$ by $1 + \dfrac{x}{2} + \dfrac{x^2}{1.2}$, we get for the coefficient of $\dfrac{x^2}{2}$, $\dfrac{2 i^3 + 3 i^2 + i}{6}$,

efore

$$1 + 2^2 \ldots + i^2 = \frac{2 i^3 + 3 i^2 + i}{6} = \frac{i (i + 1) (2 i + 1)}{6},$$

the probability in question is

$$\frac{2 x}{i . i + 1} \left\{ \frac{i (i + 1) (2 i + 1)}{6} \right\} = \frac{(2 i + 1) . x}{3}.$$

hen i is very great, this fraction approximates to $\dfrac{2 i x}{3}$; if, therefore,

atio of the white balls may be any ratio between 0 and unity, that is, if
lave no data to determine that some of these values are more probable
others, $i x = 1$, and this probability is $\frac{2}{3}$.

3. Let the ratio of the white balls to the whole number of balls, be any of
following, $\Delta x, 2 \Delta x, 3 \Delta x \ldots \ldots i \Delta x$, and consequently the ratio
e black balls to the whole number of balls,

$$1 - \Delta x, 1 - 2 \Delta x, 1 - 3 \Delta x \ldots \ldots 1 - i \Delta x,$$

let m white balls have been drawn, and n black, iu any given order.
he probability of the event observed on the hypothesis that $i \Delta x$ is the
> of the white balls to the whole number of balls is

$$\frac{(m + n) . (m + n - 1) \ldots \ldots 1}{1.2.3 \ldots m . 1.2.3 \ldots n} \times (i \Delta x)^m (1 - i \Delta x)^n,$$

the probability of this hypothesis is

$$\frac{(i \Delta x)^m (1 - i \Delta x)^n}{\Delta x^m (1 - \Delta x)^n + (2 \Delta x)^m (1 - 2 \Delta x)^n + \&c.}.$$

he probability of drawing m' white balls, and n' black balls, in $m' + n'$
e trials upon this hypothesis, is

$$\frac{(m' + n')\,(m' + n' - 1)\,\ldots\ldots\,1}{1\,.\,2\,.\,3\,\ldots\,m'\,.\,1\,.\,2\,.\,3\,\ldots\,n'}\,(i\,\Delta\,x)^{m'}\,(1 - i\,\Delta\,x)^{n'},$$

multiplying this by the probability of the hypothesis, the probability drawing m' white balls and n' black balls, considering only this hypothesis

$$\frac{(m' + n')\,(m' + n' - 1)\,\ldots\ldots\,1}{1\,.\,2\,.\,3\,\ldots\,m'\,.\,1\,.\,2\,.\,3\,\ldots\ldots\,n'}$$

$$\times\,\frac{(i\,\Delta\,x)^{n+m'}\,(1 - i\,\Delta\,x)^{n+n'}}{\Delta\,x^{m}\,(1 - \Delta\,x)^{n} + (2\,\Delta\,x)^{m}\,(1 - 2\,\Delta\,x)^{n} + \&c}$$

and the probability of drawing m' white balls and n' black balls, consider all the hypotheses, is

$$\frac{(m' + n')\,(m' + n' - 1)\,\ldots\,1}{1\,.\,2\,.\,3\,\ldots\,m'\,.\,1\,.\,2\,.\,3\,\ldots\,n'}$$

$$\times\,\left\{\frac{\Delta\,x^{m+m'}\,(1 - \Delta\,x)^{n+n'} + (2\,\Delta\,x)^{m+m'}\,(1 - 2\,\Delta\,x)^{n+n'} + \&c}{\Delta\,x^{m}\,(1 - \Delta\,x)^{n} + (2\,\Delta\,x)^{m}\,(1 - 2\,\Delta\,x)^{n} + \&c.}\right.$$

Let $\Delta\,x$ be infinitely diminished, and let $i\,\Delta\,x = 1$, that is, let any rat white balls to the whole number of balls contained in the bag to $\Delta\,x$ be equ possible between zero and unity, then this expression becomes

$$\frac{(m' + n')\,.\,(m' + n' - 1)\,\ldots\ldots\,1}{1\,.\,2\,.\,3\,\ldots\,m'\,.\,.\,1\,.\,2\,.\,3\,\ldots\,n'}\,\frac{\int x^{m+m'}\,(1 - x)^{n+n'}\,d\,x}{\int x^{m}\,(1 - x)^{n}\,d\,x},$$

taken between the limits $x = 0$ and $x = 1$.

$$\int x^{m}\,(1 - x)^{n}\,d\,x = \frac{x^{m+1}}{m+1}\,(1 - x)^{n} + \frac{n}{m+1}\int x^{m+1}\,(1 - x)^{n-1}$$

$$= \frac{x^{m+1}}{m+1}\,(1 - x)^{n} + \frac{n}{(m+1)\,(m+2)}\,x^{m+2}\,(1 - x)^{n-1}$$

$$+ \frac{n\,.\,(n-1)}{(m+1)\,(m+2)}\int x^{m+2}\,(1 - x)^{n-2}$$

$$= \frac{x^{m+1}}{m+1}\,(1 - x)^{n} + \frac{n}{(m+1)\,(m+2)}\,x^{m+2}\,(1 - x)^{n-1}$$

$$+ \frac{n\,.\,(n-1)}{(m+1)\,(m+2)\,(m+3)}\,x^{m+3}\,(1 - x)^{n-2}$$

$$\ldots\ldots + \frac{n\,.\,(n-1)\,.\,(n-2)\,\ldots\,1}{(m+1)\,(m+2)\,\ldots\,(m+n+1)}\,x^{m+n+1}.$$

When $x = 0$, all these terms vanish; when $x = 1$, all vanish except the therefore the integral required, taken between the limits $x = 0$ and $x =$

$$\frac{n\,(n-1)\,(n-2)\,\ldots\ldots\,1}{(m+1)\,(m+2)\,(m+3)\,\ldots\,(m+n+1)},$$

$\int x^{m+m'}\,(1 - x)^{n+n'}\,d\,x$, taken between the same limits, is

$$\frac{(n + n')\,(n + n' - 1)\,(n + n' - 2)\,\ldots\ldots\,1}{(m + m' + 1)\,(m + m' + 2)\,\ldots\,(m + m' + n + n' + 1)},$$

therefore the probability required is

$$\frac{(m + n')\,(m + n' - 1)\,\ldots\ldots\,1}{1\,.\,2\,.\,3\,\ldots\,m'\,.\,1\,.\,2\,.\,3\,\ldots\ldots\,n'}$$

$$\times\,\frac{(n + n')\,(n + n' - 1)\,\ldots\ldots\,1}{(m + m' + 1)\,(m + m' + 2)\,\ldots\,(m + m' + n + n')}$$

$$\times \frac{(m+1)(m+2)\ldots(m+n+1)}{n.(n-1)\ldots\ldots 1}$$

$$= \frac{(m'+n')(m'+n'-1)\ldots\ldots 1}{1.2.3\ldots m'\ldots 1.2.3\ldots n'}$$

$$\times \frac{(n+1)(n+2)\ldots(n+n')(m+1)(m+2)\ldots(m+m'+1)}{(m+n+2)\ldots(m+n+3)\ldots(m+n+4)\ldots(m+m'+n+n'+1)}.$$

If $(n+1)(n+2)\ldots\ldots(n+n')$ be represented by $[n+1]^{n'}$
$(m+1)(m+2)\ldots\ldots(m+m')$ „ „ $[m+1]^{m'}$
$(m+n+2)(m+n+3)\ldots\ldots(m+m'+n+n'+1)$ by
$[m+n+2]^{m'+n'}$, this probability is expressed by

$$\frac{(m'+n')(m'+n'-1)\ldots\ldots 1}{1.2.3\ldots m'\ldots 1.2.3\ldots n'} \frac{[n+1]^{n'}[m+1]^{m'}}{[m+n+2]^{m'+n'}}.$$

Which result in this form may be easily remembered, by observing that the same (with the difference of notation) as if the simple probability of drawing a white ball was $\dfrac{m+1}{m+n+2}$ and the probability of drawing a black ball was $\dfrac{n+1}{m+n+2}$.

Ex. 18. Let us suppose the sun to have risen 2000000 times, or days, then the probability that it will rise again is given by the preceding formula, making $p = 2000000$, and $q = 0$, the probability required is $\frac{2000001}{2000002}$.
This probability, which is already very great, must be very considerably increased, if the discoveries of physical astronomy are taken into account.

49. If a white ball has been drawn p times, and a black ball q times, the probability of drawing a white ball in a future trial is $\dfrac{p+1}{p+q+2}$, and the

probability of drawing a black ball is $\dfrac{q+1}{p+q+2}$; the greater p and q be-

come, the more nearly do these fractions coincide with $\dfrac{p}{p+q}$ and $\dfrac{q}{p+q}$,

which are their limits when p and q are indefinitely increased. This theorem is the converse of Bernoulli's theorem, of which we gave a demonstration, p. 21.

Ex. 19. We said, that if a shilling was tossed into the air, the probability of its falling heads, or the reverse, twice running, was rather greater than $\frac{1}{4}$.
Let the probability of the shilling falling heads, be any of the following quantities:

$$\frac{1}{2} - ix, \quad \frac{1}{2} - (i-1)x, \quad \frac{1}{2} - x. \quad \frac{1}{2}, \frac{1}{2}+x, \quad \frac{1}{2} + (i-1)x, \quad \frac{1}{2} + ix.$$

The number of hypotheses is $2i+1$, and the probability of the shilling falling heads twice running is

$$\frac{1}{2i+1}\left\{ \begin{array}{l} \left(\frac{1}{2} - ix\right)^2 + \left\{\frac{1}{2} - (i-1)x\right\}^2 \ldots\ldots + \left\{\frac{1}{2} - x\right\}^2 + \left(\frac{1}{2}\right)^2 \\ + \left(\frac{1}{2} + ix\right)^2 + \left\{\frac{1}{2} + (i-1)x\right\}^2 \ldots\ldots + \left\{\frac{1}{2} + x\right\}^2 \end{array} \right.$$

$$= \left(\frac{1}{2}\right)^2 + \frac{2\,x^2}{2\,i+1}\left\{1 + 2^2 + 3^2 \ldots i^2\right\}$$

$$= \left(\frac{1}{2}\right)^2 + \frac{2\,x^2}{2\,i+1}\left(\frac{i\,.\,(i+1)\,.\,(2\,i+1)}{2\,.\,3}\right) = \left(\frac{1}{2}\right)^2 + \frac{i\,.\,(i+1)\,.\,x^2}{3}$$

which probability is greater than $\left(\frac{1}{2}\right)^2$, the result when the shilling is supposed homogeneous.

Ex. 20. It follows, from what has preceded, that if an individual has made $m + n$ assertions, of which m are true and n are false; the probability of his telling the truth, in any case, is $\dfrac{m + 1}{m + n + 2}$, so far as we draw our conclusions from these assertions alone.

Let $\dfrac{m + 1}{m + n + 2} = v$, and let p be the à priori probability of an event which he asserts to have taken place.

The event observed is the assertion by this individual that the event took place, of which the à priori probability is p.

If the event did take place, the individual tells the truth; the probability of the event on this hypothesis is $p\,v$.

The probability of the event on the contrary hypothesis is $(1 - p)\,(1 - v)$, therefore the probability of this hypothesis is

$$\frac{p\,v}{p\,v + (1 - p)\,(1 - v)}.$$

If
$$\frac{p\,v}{p\,v + (1 - p)\,(1 - v)} > p, \quad v > \frac{1}{2}.$$

Thus we see that when a witness asserts that an event has taken place, he renders the probability that it did take place greater than the simple probability of the event only when his veracity is greater than $\frac{1}{2}$, which result might have been foreseen.

Ex. 21. A witness asserts that out of a bag containing a thousand tickets, a given ticket, say No. 70, has been drawn, required the probability that this number was drawn.

Let the veracity of the witness be v, as before.

The event observed is the assertion by the witness that the given number was drawn, the probability of this event, on the hypothesis that the witness tells the truth, is $\dfrac{v}{1000}$, the probability of the event on the contrary hypothesis, namely, that this ticket was not drawn, is $\dfrac{999}{1000}\,(1 - v)$; but if the witness is supposed to have no reason or inducement for choosing the No. 70 in preference to any other of the 999 undrawn numbers, this probability must be multiplied by $\dfrac{1}{999}$, which is the probability of the witness choosing this number from the 999 undrawn numbers, so that the probability of the event on this hypothesis is $\dfrac{1 - v}{1000}$.

The probability, therefore, of the first hypothesis is $\dfrac{v}{v + 1 - v}$, or v, the veracity of the witness.

Ex. 22. Two individuals, whose veracities are v and v', assert that an event has taken place, of which the probability is p.

Two hypotheses are admissible, namely, that the event did take place, and that both the individuals tell the truth; or, that the event did not take place, and that both individuals lie; the probabilities of the assertions on these hypotheses are $v\,v'\,p$ and $(1 - v)\,(1 - v')\,(1 - p)$, therefore the probabilities of these hypotheses are

$$\frac{v\,v'\,p}{p + (1 - v)\,(1 - v')\,(1 - p)} \quad \text{and} \quad \frac{(1 - v)\,(1 - v_1)\,(1 - p)}{v \times v' \times p + (1-v)\,(1-v')\,(1-p)}$$

respectively.

So if n individuals, whose veracities are v_1, v_2, v_3, v_n, assert the event to have taken place, the probability that it did take place is

$$\frac{v_1\,v_2\,v_3\ldots\ldots v_n\,p}{v_1\,v_2\,v_3\ldots\ldots v_n\,p + (1 - v_1)\,(1 - v_2)\ldots\ldots(1 - v_n)\,(1 - p)}.$$

If $n + 1$ individuals assert the event to have taken place, the probability that it did take place is

$$\frac{v_1\,v_2\,v_3\ldots\ldots\ldots v_{n+1}\,p}{v_1\,v_2\,v_3\ldots\ldots v_{n+1}\,p + (1 - v_1)\,(1 - v_2)\ldots\ldots(1 - v_{n+1})\,(1 - p)},$$

which is greater than the former probability if $v_{n+1} > \dfrac{1}{2}$, so that the assertion of the $n + 1^{th}$ individual increases the probability of the event arising from the testimony of the other n individuals, only when his veracity is greater than $\frac{1}{2}$.

Ex. 23. Two individuals, whose veracities are v and v', assert that a given ticket has been drawn out of a bag containing a thousand tickets. The probability of the event on the hypothesis, that both the individuals tell the truth and that this ball was drawn, is $\dfrac{v\,v'}{1000}$; the à priori probability, that both the individuals lie and that the given ball was not drawn, is $(1 - v)\,(1 - v')\,\dfrac{999}{1000}$: if, however, these individuals have no inducement to choose the given ticket amongst the undrawn numbers, this probability must be multiplied by $\dfrac{1}{(999)^2}$, which is the probability of their both selecting the same number amongst the undrawn numbers; the probability, therefore, of the first hypothesis, namely, that the given ticket was drawn, is

$$\frac{v\,v'}{v\,v' + (1 - v)\,(1 - v')\,\dfrac{1}{999}}.$$

If $v_1, v_2, v_3, \ldots v_n$ are the veracities of n individuals, who all assert that a given ticket was drawn, the probability that the given ticket was drawn is

$$\frac{v_1\,v_2\,v_3\ldots\ldots v_n}{v_1\,v_2\,v_3\ldots\ldots v_n + (1 - v_1)\,(1 - v_2)\ldots(1 - v_n)\,\dfrac{1}{(999)^{n-1}}};$$

hence we see how prodigiously the probability of an event of this kind increased by the concurrent testimony of many individuals. It must, however, be remarked, that the weight of the concurrent testimony of different individuals depends entirely upon the absence of inducement to lead the individuals to choose any one particular number, and upon the absence collusion.

50. If we have no data to determine the veracity of an individual, who he asserts an event to have taken place, of which the simple probability p, in order to find the probability that the event took place, we must consider the probability of the event upon every hypothesis which can be formed, that is, we must suppose all values of his veracity between zero and unity to be equally probable, à priori. The probability, therefore, that the event did take place

$$= \int \frac{p\,v\,d\,v}{p\,v + (1 - v)\,(1 - p)} = \int \frac{p\,v\,d\,v}{1 - p + (2\,p - 1)\,v},$$

taken between the limits $v = 0$ and $v = 1$;

$$= \frac{p}{2\,p - 1} \int \frac{\{\cdot(2\,p - 1)\,v + 1 - p - (1 - p)\}\,d\,v}{1 - p + (2\,p - 1)\,v}$$

$$= \frac{p}{2\,p - 1} \left\{ v - \frac{1 - p}{2\,p - 1} \log.\,(1 - p + (2\,p - 1)\,v) \right\} + c$$

$$= \frac{p}{2\,p - 1} \left\{ 1 - \frac{1 - p}{2\,p - 1} \log.\,\left(\frac{p}{1 - p}\right) \right\}.$$

When $p = \frac{9}{10}$, this is equal to $\frac{9}{8}\left\{ 1 - \frac{1}{8} \log.\,9 \right\} = \cdot 816363$ or about $\frac{?}{1}$

Ex. 24. A jury consists of n individuals; let the probability of each separately giving a right decision be p, what is the probability that a unanimous decision is a correct one? Two hypotheses can be formed, namely, the decision is a correct one, or the contrary; the event observed is a unanimous decision, and the à priori probability of this event on the first thesis is p^n, the à priori probability of the event on the second hypothesis

$(1 - p)^n$, therefore the probability of the first hypothesis is $\dfrac{p^n}{p^n + (1 - }$

which is greater than $\frac{1}{2}$, only when $p > \frac{1}{2}$. Therefore it is probable that unanimous verdict is a correct one, only when it is probable that each man considered separately will give a correct decision. The same rule à fortiori, when the verdict has been given by a majority only.

If $p = \cdot 9$ and $n = 12$, this probability is equal to $\dfrac{9^{12}}{9^{12} + 1}$.

A jury composed of $n - 2\,m$ individuals is correct.

Similarly, the probability that the decision of a majority is correct

$$= \frac{p^n + n\,p^{n-1}\,(1 - p) + n\,.\,(n - 1)\,.\,p^{(n-2)}\,(1 - p)^2 + \ldots}{p^n + (1 - p)^n + n\,p\,.\,(1 - p)\,.\,\{p^{n-2} + (1 - p)^{n-2}\} + \&c}$$

The probability that a decision given by $n - 1$ is correct, is similar

$$\frac{p^{n-1}\,(1 - p)}{p^{n-1}\,(1 - p) + p\,(1 - p)^{n-1}} = \frac{p^{n-2}}{p^{n-2} + (1 - p)^{n-2}}$$

and generally the probability that a decision given by $n - m$ of the jury correct, is the same as the probability that a unanimous decision

...ry composed of $n - 2m$ individuals is a correct one. If $n = 12$ and ...·9, the probability that a decision of a majority is a correct one by ...preceding expression $= \dfrac{999458763173}{999508948516} = \dfrac{19519}{19520}$ nearly.

...f p is unknown, the probability that a unanimous decision is a correct ...must be found by taking the integral $\displaystyle\int \dfrac{p^n \cdot dp}{p^n + (1 - p)^n}$ between the ...through which p may be supposed to vary, multiplied by $\int dp$ taken ...een the same limits.

...1. The decision of the jury in this country can only be considered as ...t of a simple majority, and the probability that this decision is a correct ...e is small, unless the simple probability that each juryman separately ...ves a correct one, is taken to be very great. If this probability is $\frac{2}{3}$, the probability of a correct decision is very little greater than $\frac{12}{3}$. The simple probability of any juryman giving a correct decision cannot be supposed to ...e strictly the same for each juryman composing the same jury, and it must ...so depend very much upon the nature of the question which is submitted ...o his determination. As this probability rests only on conjecture, we have ...nsidered the preceding questions relating to the decision of a jury with a ...iew of showing how they might be solved if we were in possession of suffi-...ent data rather than as laying any stress on the results obtained.

52. A bag contains a number of balls of i different colours:

m_1 of the 1st colour have been drawn and replaced,

m_2 „ 2nd,

m_i „ i^{th};

in $m_1 + m_2 \ldots\ldots + m_i$ trials; required the probability of drawing ... balls of the first colour, n_2 of the second, n_i of the ith colour, in ...$ + n_2 \ldots + n_i$ succeeding trials.

Let x_1 be the *à priori* probability of drawing a ball of the 1st colour,

x_2 „ „ „ 2nd,

x_i „ „ „ i^{th},

...d let C be the coefficient of $x_1{}^{m_1} \times x_2{}^{m_2} \ldots x_i{}^{m_i}$ in the developement of ...$_1 + x_2 \ldots + x_i)^{m_1 + m_2 \cdots + m_i}$; then the probability of the observed ...ent is $C \times x_1{}^{m_1} \times x_2{}^{m_2} \ldots \times x_i{}^{m_i}$; the probability of the hypothesis that x_1 is the probability of drawing a ball of the 1st colour,

x_2 „ „ 2nd,

x_i „ „ i^{th},

$C \times x_1{}^{m_1} \times x_2{}^{m_2} \times \ldots x_i{}^{m_i}$ divided by the sum of all the values of which ...is fraction is susceptible; and if C_1 is the coefficient of $x_1{}^{n_1} \times x_2{}^{n_2} \ldots x_i{}^{n_i}$, ...the developement of $(x_1 + x_2 \ldots + x_i)^{n_1 + n_2 \cdots + n_i}$, the probability of ...awing n_1 balls of the 1st colour, n_2 balls of the 2nd colour, n_i balls of the ...colour is the sum of all the values of which the quantity $C \times C_1$ $x_1{}^{(m_1 + n_1)} \times x_2{}^{(m_2 + n_2)} \ldots x_i{}^{(m_i + n_i)}$ is susceptible, divided by the sum of ...the values of which the quantity $C \times x_1{}^{m_1} \times x_2{}^{m_2} \ldots x_i{}^{m_i}$ is susceptible. If $x_1, x_2 \ldots x_i$, be supposed to vary from $x = 0$ to $x = 1$, and all these ...lues are equally probable *à priori*, then the probability required is found by ...king the integral

$$\int^i x_1{}^{(m_1 + n_1)} \times x_2{}^{(m_2 + n_2)} \ldots x_i{}^{(m_i + n_i)}\, d x_1\, d x_2 \, d x_i$$

...tween the limits $x_i = 0$, $x_i = 1 - x_1 - x_2 \ldots\ldots - x_{i-1}$

„ „ $x_{i-1} = 0$, $x_{i-1} = 1 - x_1 - x_2 - x_3 \ldots - x_{i-2}$

„ „ $x_{i-2} = 0$, $x_{i-2} = 1 - x_1 - x_2 \ldots\ldots - x_{i-3}$

„ „ $x_i = 0$, $x_1 = 1$;

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and dividing the quantity so obtained by the integral

$$\int^1 x_1{}^{m_1} \times x_2{}^{m_2} \ldots x_i{}^{m_i} \times d\,x_1 \, d\,x_2 \ldots d\,x_i$$

taken between the same limits.

If $(m_1 + 1)(m_1 + 2)(m_1 + 3) \ldots (m_1 + n_1)$ be represented by $[m_1 + 1]^{n_1}$.

$(m_2 + 1)(m_2 + 2)(m_2 + 3) \ldots (m_2 + n_2)$ „ „ $[m_2 + 1]^{n_2}$

$(\Sigma(m) + i)(\Sigma(m) + i + 1) \ldots (\Sigma(m) + \Sigma(n) + i)$ by $[\Sigma(m) + i]^{\Sigma n}$,

Σ being used as a sign of collection to denote that the sum is to be taken of all quantities which are represented by a general symbol, these integrations give for the probability required,

$$\frac{C\,[m_1 + 1]^{n_1}\,[m_2 + 1]^{n_2} \ldots [m_i + 1]^{n_i}}{[m_1 + m_2 \ldots \ldots \ldots + m_i + i]^{n_1 + n_2 \ldots n_i}};$$

which is the same, with the difference of notation, as if the simple probability of drawing a ball of the rth colour was $\dfrac{m_r + 1}{m_1 + m_2 \ldots + m_i + i}$. The probability of drawing a ball of the rth colour in one succeeding trial is

$$\frac{m_r + 1}{m_1 + m_2 \ldots \ldots + m_i + i}.$$

53. One of the most interesting and useful applications of the theory of probabilities is the solution of questions connected with the duration of life and the calculation of the values of annuities and reversionary payments. The value of an annuity is the value of the sum of the annual payments made to an individual throughout his life.

Let $1 +$ rate of interest $= \dfrac{1}{r}$, and let $p_{m,n}$ be the probability of a given individual aged m years living at least n years; the value of any sum s to be paid to him at the expiration of n years, neglecting discount, is the value of this sum multiplied by the probability of the individual being alive to receive it, which is equal to $s\,p_{m,n}$, this must be discounted in order to obtain its present value, which reduces it to $s\,r^n\,p_{m,n}$. If a_m is the value of an annuity of £1. to be received by an individual aged m years, the value of an annuity of £s to the same individual is $s\,a_m = s\,\Sigma\,r^n\,p_{m,n}$.

54. When an individual insures his life at any office, the insurance company agrees to pay his executors a certain sum at his death, whenever that event may take place.

Let $q_{m,1}, q_{m,2}, q_{m,3} \ldots \ldots q_{m,n}$ be the probabilities that an individual, aged m years, dies in the first, second, third, &c., or n^{th} year, then the value of £1. to be paid whenever he dies, discounted, is

$$r\,q_{m,1} + r^2\,q_{m,2} + \ldots \ldots \ldots + r^n\,q_{m,n};$$

but

$$q_{m,1} = 1 - p_{m,1}, \quad q_{m,2} = p_{m,1} - p_{m,2},$$

therefore the value of the insurance is

$$r\,(1 - p_{m,1}) + r^2\,(p_{m,1} - p_{m,2}) + \&c.$$
$$= r\,(1 + a_m) - a_m,$$

and the value of £s to be paid when the individual dies is

$$s\,r\,(1 + a_m) - s\,a_m.$$

By means of this expression the value of an insurance at the age m may be deduced from the value of the annuity, and vice versâ. A person insuring his life, instead of making one payment to the office, generally pays an

...nuity which is called the *premium*, the value of this *premium* with present payment

$$= \frac{s\,r\,(1 + a_m) - s\,a_m}{1 + a_m} = r\,s - \frac{s\,a_m}{1 + a_m}$$

The value of any sum s to be paid if either of two individuals, aged m and m' years respectively, are alive after n years is

$$s\,r^n\{1 - (1 - p_{m,n})(1 - p_{m',n})\}$$
$$= s\,r^n\,p_{m,n} + s\,r^n\,p_{m',n} - s\,r^n\,p_{m,n} \times p_{m',n},$$

and the value of an annuity to be paid as long as either of two individuals, aged m and m' years, are alive

$$= s\{\Sigma r^n p_{m,n} + \Sigma r^n p_{m',n} - \Sigma r^n p_{m,n} \times p_{m',n}\}$$
$$= s\,a_m + s\,a_{m'} - s\,a_{m,m'}$$

understanding by the symbol $a_{m,m'}$ the value of an annuity of £1. on the joint lives of two persons aged m and m' years.

If life is considered valuable in proportion to its duration the expectation which any individual has of life will be measured by the sum of the probabilities of his dying after each given age, that is by an annuity without interest.

Hence we have these expressions:

Expectation of life $\quad = \Sigma p_{m,n}$

Value of annuity $\quad s\,a_m = s\,\Sigma r^n p_{m,n}$

.........insurance of a given sum s in one payment

$$= s\,r\,(1 + a_m) - s\,a_m,$$

.........premium of insurance of a given sum s

$$= r\,s - \frac{s\,a_m}{1 + a_m},$$

.........annuity during two joint lives

$$= s\,\Sigma p_{m,n} \times p_{m',n},$$

.........annuity to be paid as long as either of two individuals, aged m and m' years respectively, are alive

$$= s\,a_m + s\,a_{m'} - s\,a_{m,m'}.$$

Thus if $m = 20$, $r = \dfrac{1}{1\cdot03}$, $a_m = 20\cdot1428$, according to Table III. for males.

Value of the single premium required for a male aged 20 to secure the payment of 1 at the end of the year in which the life shall fail

$$= \frac{21\cdot1428}{1\cdot03} - 20\cdot1428 = \cdot38419.$$

Value of the annual premium required for a male aged 20 to secure the payment of 1 at the end of the year in which the life shall fail

$$= \frac{1}{1\cdot03} - \frac{20\cdot1428}{21\cdot1428} = \cdot01817.$$

55. In calculating the values of annuities the labour is much diminished by observing that the probability of an individual aged m years living at

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least n years is equal to the product of the probability of his living at least $n - q$ years, multiplied by the probability of an individual aged $m + n - q$ years living at least q years, or

$$p_{m,n} = p_{m,n-q} \times p_{m+n-q,q};$$

and therefore, putting

$$n - 1 \text{ for } q, \quad p_{m+1,n-1} = \frac{p_{m,n}}{p_{m,1}},$$

$$a_{m+1} = r\, p_{m+1} + r^2 p_{m+2} + \&c.$$

$$= \frac{r^2 p_{m,2} + r^3 p_{m,3} + \&c.}{r\, p_{m,1}}$$

$$= \frac{a_m - r\, p_{m,1}}{r\, p_{m,1}} = \frac{a_m}{r\, p_{m,1}} - 1.$$

By means of this expression, which appears first to have been noticed by Mr. Barrett, the value of any annuity may be deduced from that which precedes or follows it.

Thus if $m = 20$, $r = \dfrac{1}{1\cdot 03}$, $p_{m,1} = \dfrac{5707}{5765}$, according to Table II., and $a_m = 20\cdot 1428$, according to Table III.,

$$a_{21} = \frac{20\cdot 1428 \times 1\cdot 03 \times 5765}{5707} - 1 = 19\cdot 9580.$$

56. It has been seen that the values of annuities, reversionary payments, &c., consist of the sum of a number of separate payments. If these payments are calculated accurately at certain intervals the values of those which are intermediate may be interpolated by known methods.

In fact, if y_0, y_n, y_{2n}, &c. are successive values of the variable y, and if $\Delta y_0 = y_n - y_0$, $\Delta^2 y = y_0 + y_{2n} - 2 y_n$, &c., and y_i be any value of y intermediate between y_0 and y_n,

$$y_i = y_0 + i \Delta y_0 + \frac{i(i-1)}{2} \Delta^2 y_0 + \&c.$$

When the sum only of the values of y is required it is not necessary, however, to go through the labour of calculating each particular quantity in the series, it may easily be shown that this sum is equal to

$$n (y_0 + y_n + y_{2n} \ldots \ldots \ldots y_m)$$

$$+ \frac{n-1}{2} \left\{ y_m - y_0 \right\} - \frac{(n-1)(n+1)}{12 n} \left\{ \Delta y_m - \Delta y_0 \right\} \&c.$$

The problem appertains to what are called mechanical quadratures, and this method is similar to that made use of in summations which are required in calculating the perturbations of a comet. See the *Mécanique Céleste*, vol. iv. p. 206. In applications of this series to the calculation of annuities, reversionary payments, &c. y_m, Δy_m, &c. $= 0$. The first term in the series of the values of y or y_0 is the value of a present payment $= 1$, if we neglect the term

$$\frac{(n-1).(n+1)}{12 n} \left\{ \Delta y_m - \Delta y_0 \right\}$$

and the following, and suppose the values of the annual payments to be in arithmetical progression, the value of an annuity on the life of a person aged 20, to commence at the end of the first year, supposing $n = 10$,

$$= 10 \left\{ 1 + r^{10} p_{20,10} + r^{20} p_{20,20} + \&c. \right\} - \frac{9}{2} - 1,$$

$$= 10 \left\{ r^{10} p_{20,10} + r^{20} p_{20,20} + \&c. \right\} + \frac{9}{2}.$$

57. In calculating annuities the values of the annual payments, except, per-haps, at birth, vary so gradually that the result thus obtained will be a suffi-ciently accurate approximation, and, probably, within the limits of the errors of which the values of p, that is of the table of mortality which is used, are susceptible; the correction, however, in all cases may be considered as con-stant for different tables of mortality, and may, therefore, be determined by calculating the annuity first accurately and afterwards by the approximate method from any table of mortality in which the deaths are given for every age, the difference between the two values so obtained will be the correction required.

The method of calculating annuities hitherto adopted by Dr. Price and other writers, has been, first to interpolate living between those which are actually given from ten years to ten years by the observations, to calculate probabilities of surviving each number of years from the numbers so inter-polated, then to *discount* these probabilities so obtained, and finally to obtain the value of the annuity by adding together all these discounted probabili-ties. This labour, though diminished by means of the equation noticed by Mr. Barrett, is still unnecessary, and would lead to the same result as that given by the series of the last page. The same method is, we think, gene-rally the simplest which can be applied to calculating annuities on two or more lives, and, in fact, to the summation of any series of which the law is too complicated to admit of the ordinary methods.

58. We have, as yet, said nothing with respect to the method of determin-ing p and q, and this is a question of very considerable difficulty, whether as regards theory or practice.

Suppose 1000 infants to be carefully registered at birth, and the ages at which they die to be noted. If of these 900 are alive at the end of the first year the probability of an infant at birth living one year under similar circum-

stances would be nearly $= \dfrac{900}{1000}$, or $\dfrac{9}{10}$; and if the number of infants registered

were infinite, this would cease to be an approximation, the ratio of the number alive at the end of the first year to the whole number registered at birth would be exactly equal to the probability of an infant under the same circum-stances living 1 year. The problem is, in fact, similar to the one we solved, page 33, when we supposed a bag to contain a number of balls of different colours, and that a certain number of drawings had been made. The different ages at which the individuals can die correspond to the different colours in the former problem.

If we suppose 101 ages at which deaths take place, that is, if we sup-pose n to vary from 0 to 100 in the values of $q_{m,n}$, $p_{m,n}$, and if d_1, d_2, &c. d_m, are the number of the 1000 infants who have been observed to die in their first, second, and n^{th} years respectively, we have

$$q_{m,n} = \frac{d_{m+n} + 1}{d_{m+1} + d_{m+2} \cdots \cdots + 101 - m}$$

$$p_{m,n} = \frac{d_{m+n} + d_{m+n+1} + \ldots + 101 - m - n}{d_{m+1} + d_{m+2} \cdots \cdots + 101 - m}$$

$$q_{o,n} = \frac{d_n + 1}{d_1 + d_2 \ldots\ldots\ldots\ldots + 101}$$

$$p_{o,n} = \frac{d_n + d_{n+1} + \ldots\ldots \quad 101 - n}{d_1 + d_2 \ldots\ldots\ldots\ldots + 101}$$

in this case

$$d_1 + d_2 + \&c. \ldots\ldots = 1000$$

$$q_{o,n} = \frac{d_n + 1}{1101}, \quad p_{o,n} = \frac{d_n + d_{n+1} + \&c. \ldots\ldots + 101 - n}{1101}.$$

59. Unfortunately, no registers of this kind have been kept, and we are obliged to have recourse to those sources which best supply this deficiency. If the population of any district were subject to no fluctuations arising from an influx of the inhabitants of the neighbouring countries, and if it were constant, that is, if the births and deaths were always the same and equal to each other, a register of the ages at which deaths took place would alone be wanted to determine the values of p and q for this place. For it is evident that if the *population were large* the probability of an individual dying at the nth age would be equal to the deaths of persons at that age (n) divided by the births n years previously, but the births n years previously are, upon the hypothesis we have made, exactly equal to the present number of yearly deaths $= d_1 + d_2 \&c. = \Sigma d_n$, using the letter Σ as before,

and

$$q_{o,n} = \frac{d_n}{\Sigma(d_n)};$$

and in the same way $q_{m,n}$ may be determined.

The parish books, therefore, if they were accurately kept, and if the population were subject to the conditions we have mentioned, would furnish the information required, and they were used as a first approximation.

60. When the population is not stationary, the preceding results require modification.

Let d_n be the deaths observed at the age n in a given place, b_n the births in that place n years previously; then

$$q_{o,n} = \frac{d_n + 1}{b_n + 101 - n}.$$

Let us suppose that the births m years ago were equal to the total number of deaths now, and that the births increase in a geometric progression, of which the common ratio is r; then

$$b_n r^n = b_o = b_m r^m = \Sigma(d) r^m,$$

$$\therefore b_n = \Sigma(d) r^{m-n},$$

and

$$q_{o,n} = \frac{d_n + 1}{\Sigma(d) r^{m-n} + 101 - n}.$$

m must be found, from the consideration that $\Sigma(q_o) = 1$, which, in the present form of the equation, would be troublesome: the labour may be much simplified by observing, that when r does not differ much from unity, this value of $q_{o,n}$ does not sensibly differ from

$$q_{o,n} = \frac{d_n + 1}{(\Sigma(d) + 101 - n) r^{m-n}} = \frac{1}{r^m} \cdot \frac{(d_n + 1) r^n}{\Sigma(d) + 101 - n}$$

In this form $q_{o,n} \cdot r^m$ may be calculated without any previous knowledge of m; let the value of $q_{o,n} \cdot r^m$ be called D_n; then

$$r^m \Sigma (q_o) = \Sigma (D) = r^m$$

$$m = \frac{\log. \{ \Sigma (D) \}}{\log. r}.$$

n this manner, when r is taken at 1·005, m is found, from the Chester bservations, Table I., to be somewhere about 40. This result agrees, ithin the errors of observation, with the period given by an actual compa-on of burials and baptisms.

61. The difficulty has been seen of applying mathematical reasoning to the luation of risks which are connected with the duration of life, but the fficulty with fire and sea insurances is greater, from the number of circum-ances which are necessary to be taken into account. If underwriters only sured against total losses, the question would be comparatively easy, for would only be necessary to ascertain the number of houses out of a given mber which are annually burnt to the ground, or the number of vessels hich have been lost out of a given number making the same voyage. ut by far the greater part of the claims on the underwriters arises from rtial losses, as when a house is damaged by fire, or a cargo is partially jured by sea water, &c.

62. In insurances upon lives the observations which we have referred to rnish data which serve to ascertain the value of the risk, but in insurances ainst loss by fire and sea no similar data have been published, and so rious and complicated are the contingencies to which they are subject, that would be difficult to form any tables of the values of these risks. A regis- r might be made out by each individual underwriter, or company of under- riters, showing the result of their respective experience, which would, ubtless, be useful to them in the conduct of their business. There are any important facts which might be collected and systematically arranged, e knowledge of which would also be useful to the underwriter. Thus a gister of the weather in different parts of the world, for a sufficient number years, would be some guide in ascertaining the relative value of the risk maritime insurances, as far as it is affected by season. The Society for e Registry of Shipping appoints competent persons to survey every ship hich enters any of the principal ports in this kingdom; their detailed report, hich contains the name of the ship, captain, owners, her tonnage, the port here built, the materials of which she is made, &c., is published by sub- ription, and an office is kept for the purpose of posting it up to the latest riod. Such a plan adopted in the principal maritime ports of foreign untries would, in the course of time, give a complete register of the com- ercial shipping of Europe. The preceding remarks apply to maritime surances, and although the difficulty of obtaining sufficient data to deter- ine the risk in fire insurances is considerable, it is not so great as in sea surances.

It is foreign to our purpose to offer any further remarks upon these ques- ons, the solution of which is the continual business of the underwriter, d which requires great skill and experience.

63. The principal use that has hitherto been made practically of the eory of probability has been in the solution of questions connected with e valuation of annuities and reversionary payments.

The *method of least squares*, which is of very extensive application in tronomy, was proposed by M. Legendre in 1805;* it has since been own by Laplace† to be preferable to every other, when the number of

* *Nouvelles Méthodes pour la Détermination des Orbites des Comètes.*
† *Théorie des Probabilités.*

equations, which serve to determine any unknown quantities, exceed in number that of the unknown quantities themselves. Our limits do not permit us to give the analysis upon which this proof is founded, we shall, however, endeavour to explain shortly in what the method itself consists.

The data furnished by observation lead in general to equations of this form
$$a - b x + c y + \&c. = 0,$$

in which equation a, b, c, &c. are known quantities which vary from one equation to another. Each nth observation gives an equation
$$a_n - b_n x + c_n y + \&c. = 0.$$

If the number of equations is equal to that of the unknown quantities x, y, z, they may be determined by linear elimination, but generally the number of equations exceeds that of the unknown equations, and the question arises, of which the solution is in some measure arbitrary, what system of equations, equal in number to that of the unknown quantities x, y, z, is most favourable for their determination.

The *method of least squares*, which Laplace has proved to be the most advantageous, consists in determining the quantities x, y, z, so that the

quantity
$$\{ a_1 - b_1 x + c_1 y + \&c. \}^2$$
$$+ \{ a_2 - b_2 x + c_2 y + \&c. \}^2$$
$$\&c.$$
$$+ \{ a_n - b_n x + c_n y + \&c. \}^2$$

is a minimum.

For this purpose it is only necessary to differentiate this sum separately, with respect to each of the variables x, y, z, &c., and put the results separately $= 0$.

The equation, which is obtained by making x alone vary, is
$$\{ a_1 - b_1 x + c_1 y + \&c. \} b_1$$
$$+ \{ a_2 - b_2 x + c_2 y + \&c. \} b_2$$
$$+ \&c.$$
$$+ \{ a_n - b_n x + c_n y + \&c. \} b_n = 0,$$

or
$$\Sigma a_n b_n = x \Sigma b_n^2 + y \Sigma b_n c_n + \&c. = 0 :$$

each of the quantities x, y, z, &c. furnishes a similar equation, and hence a system of equations results equal in number to those quantities, from whence they may be found by linear elimination. It is thus that many thousand observations may be made to concur in the determination of one element.

Suppose, for example, the question consists in determining with accuracy the elements of the orbit of a planet, after having obtained them nearly by a first approximation.

Let λ be the geocentric longitude observed, and suppose the uncertainty is with respect to two only of the elements e and ϖ, and let $\delta \lambda$ be the error of longitude, or the difference between the longitude of the planet observed at a given time, and that which is deduced by calculation from the approximate elements; δe, $\delta \varpi$ the errors of those elements; then by Taylor's theorem, neglecting the squares, &c. of δe and $\delta \varpi$

$$\delta \lambda = \left(\frac{d \lambda}{d e} \right) \delta e + \left(\frac{d \lambda}{d \varpi} \right) \delta \varpi$$

$\left(\dfrac{d\lambda}{d e}\right)$ and $\left(\dfrac{d\lambda}{d\varpi}\right)$, may be calculated directly, but it is better to infer them by assuming an arbitrary error δe, and by finding the corresponding error $\delta\lambda$.

If a and b be put for $\left(\dfrac{d\lambda}{d e}\right)$ and $\left(\dfrac{d\lambda}{d\varpi}\right)$ the nth observation furnishes the equation
$$(\delta\lambda)_n = a_n\,\delta e + b_n\,\delta\varpi,$$
and the two equations which serve to determine δe and $\delta\varpi$ by the *method of least squares* are
$$\Sigma\,(\delta\lambda)_n\,a_n = \delta e\,\Sigma\,(a_n)^2 + \delta\varpi\,\Sigma\,a_n\,b_n$$
$$\Sigma\,(\delta\lambda_n)\,b_n = \delta e\,\Sigma\,a_n\,b_n + \delta\varpi\,\Sigma\,(b_n)^2$$

If only one quantity has to be determined, this method evidently resolves itself into taking the mean of all the values given by observation.

64. We shall now, in conclusion, trace the theory of probability through the different stages of its progress, and mention the principal writers who have assisted in establishing its principles. The estimation of the probability of a future event, by enumeration of the cases supposed to be similarly circumstanced, does not appear to have been attempted until the early part of the seventeenth century; and the very elementary nature of the first problem of which the solution is on record, serves to show that the subject was then altogether new. It is contained in a fragment of uncertain date, written by the celebrated Galileo, who died in 1642. It was addressed to a friend who thought the fact that the points 9 and 10 can both be produced by six different combinations of numbers on three dice difficult to reconcile with the notorious preference given by gamesters to the latter number beyond the former. The difficulty is explained by Galileo, by taking into account the permutations of the component numbers, and the respective chances of these two numbers are thus shown to be as 25 to 27. A correct table is subjoined of the permutations of all numbers which can be thrown on three dice; and it is added, that the consideration of this table will serve for the solution of other problems of the same nature. All this must be admitted to belong to the infancy of the science, nor does it appear that Galileo thought the subject of sufficient interest to call for further inquiry.

65. The history of the theory of probability is generally made to begin several years later, when, in the year 1654, the two following problems were proposed by the Chevalier de Meré to Blaise Pascal.

1st. Two players want each a given number of points towards winning. If they separate without playing out the game, how should the stakes be divided between them?

2d. In how many trials is it an even wager to throw sixes upon two dice?

We are told in one of Pascal's letters to Fermat, that his answer to the latter question, that the odds are against twenty-four trials, and in favour of twenty-five, though undoubtedly correct, scandalized Mr. de Meré, " and made him declare loudly that the science of arithmetic is inconsistent with itself."[*] The Chevalier thought that the chances being in favour of throwing six in four trials with one die, on which are six different numbers, they ought also to be in favour of throwing two sixes in six times as many, or twenty-four trials with two dice, on which are six times as many, or thirty-six different numbers. Those who have read the preceding pages with any degree of attention, will readily perceive that the Chevalier (whose name it

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* *Opera Petri de Fermat,* Tolosæ, 1679.

has become unusual to mention, without adding that he was a man of talent, but no mathematician) was thus comparing events which have no connection with each other. We shall have occasion presently to mention errors in the principles of this science committed under the sanction of a name of greater influence and authority among mathematicians.

66. The other problem (which afterwards obtained the name of the Problem of Points) appeared to Pascal of greater interest; he communicated it to Fermat, Roberval, and others; none of whom, but Fermat, returned him a satisfactory solution. The correspondence which passed on this subject between Fermat and Pascal appeared in 1679, in the posthumous edition of Fermat's works published at Toulouse, and is now also to be found in the complete edition of Pascal's works. Pascal began by considering the simplest case, in which one of two players, whom we will call A, wants one, and B, the other, two points of winning the game. He determined the required proportion from the consideration that if B win the next point, of which his chance is only $\frac{1}{2}$, these players would be in a condition of equality; and if they were then to separate, the stake ought to be equally divided between them; so that A's present share should be made up of half the stake corresponding to his equal chance of winning the next point, and one quarter corresponding to the present chance of his share, if B were to win the next; making $\frac{3}{4}$ in all. This mode of solution is very elegant, but there is some difficulty in applying the same principle to more complicated questions. It has been adopted by subsequent writers in examining the most difficult parts of the theory, but aided by a method of analysis very far superior to anything with which Pascal or his contemporaries were acquainted. In fact, Pascal was led into an error when he attempted to extend his method to the general problem, which occasioned a short controversy between him and Fermat, who had preferred the more laborious, but also more direct, method of enumerating all the possible ways in which the game might be terminated, and proportioning the division of the stakes according to the numbers which appear favourable to either party. Pascal found some difficulty in admitting that this method of Fermat's is good in every case, and confirmed himself in his mistake in consequence of an erroneous distribution which he made of the permutations of three letters, when he attempted to apply Fermat's method to the case of three players. Fermat pointed out the nature of his error, at least we may presume so from a letter of Pascal's, in which he retracts his former objection, saying, that Fermat's last remarks had been entirely satisfactory.

67. This correspondence was still unpublished, when Huyghens turned his thoughts to the theory of probability, and composed a short Latin treatise, " De Ratiociniis in Ludo Aleæ," first printed by Schooten in 1658 at the end of his " Exercitationes Geometricæ." This is the earliest regular treatise on the subject, which thenceforward continued to draw more and more the attention of mathematicians. Besides an examination in detail of Meré's questions, Huyghens' treatise contains the enunciation of the general and fundamental theorem of this branch of the science, that if any player have p chances of gaining a sum represented by a and q chances of gaining b, his *expectation* (a term then first introduced) will be rightly represented by $\frac{p\,a + q\,b}{p + q}$. Elementary as this truth may now appear, it was not received altogether without opposition.

68. In the year 1670, a Jesuit named Caramuel published the two first volumes of his course of mathematics, under the title of " Mathesis Biceps,"

which he introduced a treatise on the theory of games at dice, which he lled Kubeia, from the Greek word signifying a die. At the end of it he rinted the whole of Huyghens's essay, professing to be ignorant whether it ad been already published or not. Nicolas Bernoulli has characterised aramuel's work as one continued blunder, and indeed this author has llen into mistakes from which the reading of Huyghens's treatise ught to have preserved him. For instance, when proposing to determine ie chances favourable to A and B; if the former (who is to begin) under-ikes to throw six before the latter throws seven, upon two dice, his reason-ig is as follows: A's chance of throwing six is $\frac{5}{36}$, and therefore, if the stake e 36, the value of his throw may be taken to be five, leaving thirty-one to I, whose chance of winning, if he have a throw, being equal to $\frac{1}{6}$, his first brow also may be bought off for $\frac{1}{6}$ of the remainder, or $5\frac{1}{6}$, leaving $25\frac{5}{6}$, till to be contended for. Caramuel's reasoning is so far correct; but istead of continuing to divide this remainder in the proportion of the hances of the two players, which would have led him to two infinite series, he sums of which would be the just proportions, he argued that the value f the first throw of each player being compensated to him by the share hus allotted to each out of the stake, this second remainder ought to be qually divided between them. Hence he deduced the shares of A and B, f they were to leave the game unplayed, to be respectively $17\frac{11}{12}$ and $18\frac{1}{12}$, nstead of $17\frac{11}{16}$ and $18\frac{5}{16}$, which Huyghens had already deduced by a lifferent and more correct analysis.

69. The Journal des Sçavans for 1679 mentions an essay published in the preceding November, by Sauveur, on the advantage of the banker at basset, a game of cards then much played in Paris, and celebrated for the duels it occasioned, to such an extent that it became necessary, solely on that account, formally to prohibit it from being played. This treatise was compiled at the request of the Marquis Dangeau, and brought Sauveur into great favour at court, where he was admitted to explain his theory to Louis XIV.[*]

70. It has been the misfortune of the science of probability, in consequence of the ready application made of its principles to games at cards and dice, that a prejudice has from the first existed against it as if ministering only to gambling and immorality, and available for no other purpose: accordingly the anonymous writer, who, in 1692, published the first English essay " Of the Laws of Chance," thought it necessary to protest in his preface that the design of his book was " not to teach the art of playing at dice, but to deal with them as with other epidemic distempers, and perhaps persuade a raw squire to keep his money in his pocket." This essay, which was edited, and is generally supposed to have been written, by Motte, the secretary of the Royal Society, contains a translation of Huyghens's treatise, and an application of his principles to the determination of the advantage of the banker at pharaon, hazard, and other games, and to some questions relating to lotteries. The body of the work does not contain any new principle, but there are some remarks in the preface, which, considering the time at which they were written, deserve attention, and show how justly the author had apprehended the nature of his subject. " It is impossible," says he, " for a die with such determined force and direction not to fall on such a determined side, only I do not know the force and direction which make it fall on such a determined side, and therefore I call that chance, which is nothing but want of art."—" There are very few things which we know, which are

not capable of being reduced to a mathematical reasoning ; and when they cannot, it is a sign our knowledge of them is very small and confused ; and where a mathematical reasoning can be had, it is as great folly to make use of any other, as to grope for a thing in the dark when you have a candle standing by you."—" There is likewise a calculation of the quantity of probability founded on experience, to be made use of in wagers about any thing. The yearly bills of mortality are observed to bear such proportion to the live people as 1 to 30 or 26 ; therefore it is an even wager that one of thirteen dies within a year (which may be a good reason, though not the true, of that foolish piece of superstition,) because at this rate if 1 out of 26 dies, you are no loser."

71. Long before mathematics had been applied to this science, Kepler had formed the same accurate notion of the real meaning of chance as is here expressed by Motte. In his dissertation on the new star which appeared in 1604, after mentioning that some were of opinion it came by chance, and illustrated their meaning by supposing a set of dice to be thrown an infinite number of times, in which it would necessarily happen (according to them) that any required number would at last be thrown, he says that even in the case adduced, those are very unthinking who look upon the events as entirely without a cause. " Why does six fall in one throw and ace in another? Because this last time the player took up the die by a different side, shut his hand upon it differently, shook it, threw it in a different manner, or because the wind was blowing differently upon it, or it fell on a different part of the board. There is nothing in all this, which is without its proper cause, if any one could investigate such niceties."*

72. The bills of mortality, mentioned in Motte's book, are registers which began to be kept in 1592, of the annual number of deaths in the city of London, which, with some intermission between 1594 and 1603, have been regularly returned to the present time. They were first intended to make known the progress of the plague ; and it was not till 1662 that Captain Graunt, a most acute and intelligent man, conceived the idea of rendering them subservient to the ulterior objects of determining the population and growth of the metropolis ; as before his time, to use his own words, " most of them who constantly took in the weekly bills of mortality, made little or no other use of them than so as they might take the same as a text to talk upon in the next company ; and withal, in the plague time, how the sickness increased or decreased, that so the rich might guess of the necessity of their removal, and tradesmen might conjecture what doings they were like to have in their respective dealings." Graunt was careful to publish with his deductions the actual returns from which they were obtained, comparing himself, when so doing, to " a silly schoolboy, coming to say his lesson to the world (that peevish and tetchie master,) who brings a bundle of rods, wherewith to be whipped for every mistake he has committed." Many subsequent writers have betrayed more fear of the punishment they might be liable to on making similar disclosures, and have kept entirely out of sight the sources of their conclusions. The immunity they have thus purchased from contradiction could not be obtained but at the expense of confidence in their results.

73. These researches procured for Graunt the honour of being chosen a fellow of the Royal Society, and, to pass over Sir Wm. Petty's " Observations," as bearing less directly on our subject, were undoubtedly the cause which led *Halley* to consider the duration of human life, as he himself owns, in the

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* De Stellâ novâ. Pragæ, 1606.

paper published in the Philosophical Transactions in 1693. In this celebrated paper, from which we must date the commencement of real knowledge on the subject of life annuities and insurances in this country, Dr. Halley has made choice of a register of deaths which had been kept at Breslau, in Silesia, and which had been then recently communicated by Neumann (probably at Halley's request,) through Justell, to the Royal Society, in whose archives it is supposed that copies of the original registers are still preserved. Before continuing our notice of this very interesting branch of the subject, we shall mention some other important works which appeared about the same time.

74. James Bernoulli had shown that he was not inattentive to the progress of this science by a problem which, according to the fashion of that time, he had published in the Journal des Sçavans for 1685, in the form of a challenge to his contemporaries. This problem was to determine the chances of A and B, who are each to score a certain number of points thrown on the dice, A beginning with one throw, B following also with one ; A then being allowed two, and B two ; A three, and B three, and so on till the conclusion of the game. Leibnitz answered the question, and undertook to divine the analysis which had conducted Bernoulli to the solution given by him, without demonstration, in the Journal de Leipsic for May, 1690.

75. There is also a treatise by Leibnitz, on Complexions, or, as we now more commonly call them, Combinations, but which was not written with any reference to the science of chances, in which this theory is so pre-eminently useful.

The distinctive names which Leibnitz adopts, of combinations, conternations, conquaternations, &c., to express what we now call combinations two by two, three by three, &c., are no longer in use, except among German writers, where we still meet with the terms binions, ternions, quaternions, &c. Leibnitz mentions Clavius as having been the first who gave, in 1583, a clear view of this theory, " not being able to find any traces of it in the Arithmetic of Cardan, to whom Schwenter refers it." Schwenter probably alluded to Cardan's book, " De Proportionibus," in which the figurate numbers are mentioned, and their use shown in the extraction of roots, as employed by Stifel, a German algebraist, who wrote in the early part of the sixteenth century.

76. It is not necessary to do more than mention an essay, by Craig, on the probability of testimony, which appeared in 1699, under the title of " Theologiæ Christianæ Principia Mathematica." This attempt to introduce mathematical language and reasoning into moral subjects can scarcely be read with seriousness ; it has the appearance of an insane parody of Newton's Principia, which then engrossed the attention of the mathematical world. The author begins by stating that he considers the mind as a movable, and arguments as so many moving forces, by which a certain velocity of suspicion is produced, &c. He proves gravely, that suspicions of any history, transmitted through the given time (*cæteris paribus*), vary in the duplicate ratio of the times taken from the beginning of the history, with much more of the same kind with respect to the estimation of equable pleasure, uniformly accelerated pleasure, pleasure varying as any power of the time, &c. &c.

77. An anonymous essay in the Philosophical Transactions of the same year, and of not much greater value, may perhaps be attributed to the same author. The theory there laid down is, that a fraction of the doubt which always remains as to the truth of a narrated fact, after any number of concurrent witnesses, is always removed by an additional testimony. This *obviously false theory* was taken up at a much later period, by Bicquilley, in

a work entitled "Du Calcul des Probabilités," and by Condorcet in the article "Probabilité," in the French Encyclopædia.

78. James Bernoulli was employed in preparing a copious work on the science of chances, till his death in 1705, by which its appearance was delayed during ten years, after which his nephew, Nicolas Bernoulli, found leisure to superintend its publication, though in an unfinished state. In the mean time Montmort published his celebrated work, "Essai d'Analyse sur les Jeux de Hazard," the most extensive of the sort which had till then appeared, in which the conditions of all the principal games then in vogue are discussed at considerable length, and the theory of combinations extended and enriched with several new theorems. Immediately after the publication of Montmort's book, Demoivre, a Frenchman naturalized in England after the revocation of the Edict of Nantes, inserted, in the Philosophical Transactions for 1711, a short essay entitled "De Mensura Sortis," which, in 1716, he published in a greatly enlarged form, under the title of "The Doctrine of Chances." This work is far superior, both in research and elegance, to all which had preceded it; the collection of problems which it contains is far too extensive to admit any complete notice of it being given in this place: it will be sufficient to instance the doctrine of recurring series, and the theorems on the duration of play, which are to be met with in it for the first time, to show how much farther Demoivre carried his inquiries than those who had written on the subject before him. Montmort, who had been a personal friend of Demoivre, thought he had some reason to complain of the manner in which Demoivre spoke of his methods, and a coolness existed in consequence for some time between them.

79. The treatise by James Bernoulli, mentioned above, which was published in 1715, by his nephew Nicolas, and entitled "Ars Conjectandi," may be considered as belonging to the earlier period, at which unquestionably it was written. It is divided into four parts; the first consisting of Huyghens's treatise, with a commentary on most of the propositions. The second contains the abstract theory of combinations, in which are many new and elegant results; amongst others, the expression for the sum of the ath powers of the natural numbers, in which series occur for the first time those remarkable coefficients since become so famous, under the name of Bernoulli's Numbers. A less profitable labour, which is also to be met with in this part of the work, is the curious analysis of the permutations of the celebrated Latin verse, *Tot tibi sunt dotes, Virgo, quot sidera cœlo*, which are determined to be 3312 in number, without transgressing the laws of Latin metre. It does not appear that James Bernoulli intended to publish this analysis, which was found by his nephew among his loose papers. The third part gives the application of the preceding principles to a variety of questions. The following problem deserves notice, because Bernoulli has given a false, though plausible solution of it, together with the true one, in order, as he says, to show what care is necessary to avoid error in the discussion of these questions. A is to throw a die, and to repeat his throw as many times as the number thrown the first time. If the sum of the points given by the latter set of throws be less than 12, A loses; if more, he wins; if they equal 12, he takes half the stake. His expectation is required. The true value of his

expectation is found to be $= \dfrac{15295}{31104}$: rather less than $\frac{1}{2}$, the false solution is

as follows:—A has $\frac{1}{6}$ chance of throwing an ace at the first trial, in which case he will have but one throw to reckon upon, and as this may equally give him any number from 1 to 6, his chance from it may be reckoned at

$$\frac{+2+3+4+5+6}{6} = 3\frac{1}{2}.$$ In the same manner, if he throw a deuce

the first time, he cannot, in the two throws which this secures to him, score less than two or more than 12, and it is easy to see that the chances of each number equidistant from the mean throw, 7, are equal; 7 is, therefore, his expectation on this supposition. If 3, 4, 5, or 6 be thrown the first time, his expectation on each will similarly be found to be the means between 3 and 18, 4 and 24, 5 and 30, 6 and 36, or $10\frac{1}{2}$, 14, $17\frac{1}{2}$, and 21 respectively, so that the expectation of his throws will be $\frac{1}{6}\{3\frac{1}{2} + 7, + 10\frac{1}{2}, + 14 + 17\frac{1}{2} + 21\} = 12\frac{1}{4}$ points, from which it would appear that the odds are in his favour. From the manner in which Bernoulli dwells upon the plausibility of this solution, it seems not improbable that he had been himself deceived in the first instance, by the erroneous view which he here exposes to his readers. The error consists in not multiplying each chance separately by the gain or loss it could occasion to the player. The fourth part of Bernoulli's book, which had been expected with the greatest impatience, but which unfortunately was left incomplete at the time of the author's death, was intended to contain an application of the theory of probabilities to the examination of questions connected with civil and domestic life. Imperfect as this has been left, it must, undoubtedly, be considered as the foundation of whatever has been since done in this branch of the science. Bernoulli seems to have been the first to introduce the term " moral certainty," on which we have already remarked in the body of the treatise. He also, in imitation of Aristotle,[*] distinguishes between what he calls free and casual contingencies, classing under the former all those contingent events which depend on the will of a rational being. He also inculcates strongly the fundamental principle, from the neglect of which so much error and confusion have arisen, that "contingency or chance has reference merely to the state of our knowledge." After explaining the principal rules by which we should be guided in our investigations, he proceeds, among other things, to examine the method of determining probabilities à *posteriori*, that is to say, by often-repeated experiment: and shows, in the noted theorem which still bears his name, that the probability of attaining to the knowledge of the probability of an unknown event constantly increases with the number of experiments made upon it, so that we can always, by multiplying our experiments, reach a degree of probability as near certainty as we choose to fix upon, that the error of our estimation lies within given limits. With this proposition the work abruptly terminates. At the end of Bernoulli's book is an anonymous letter on the game of tennis, the author of which is not certainly known, but the theory, language, and notation, strongly mark it to belong, if not to James Bernoulli himself, at any rate to some one trained in the same school, and fully imbued with his ideas and opinions.

80. The first great step beyond what Bernoulli had suggested, showing the use to be made of experiments in estimating unknown probabilities, is contained in a posthumous paper by Bayes, inserted in the Philosophical Transactions for 1763, through the means of Dr. Price, so well known by his own publication on the subject of annuities. The problem which Bayes proposes to solve in this paper is the following:—Given the number of times in which an unknown event has happened and failed. Required the chance that the probability of its happening in a single trial lies somewhere between any two degrees of probability that can be named. When disencumbered of the geometrical form under which it was then the fashion to represent inte-

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* Physica, lib. ii. cap. 6.

grals, Bayes's theorem is in substance, that if a and A be any two fractions between 0 and 1, the probability that the happening of an event which depends on unknown causes, but which has been already observed to happen p times exactly in $p + q$ experiments, has a degree of probability not greater than a, and not less than A, will be equal to $\dfrac{\int x^p.(1-x)^q.dx}{\int x^p.(1-x)^q.dx}$, the integral in the numerator being taken between the limits a and A, and in the denominator between 0 and 1. This theorem rests on the more elementary one, that the probability of the existence of a supposed cause of any observed event is proportional to the probability of the event, derived from the supposition of that cause being known to be true. The rest of the paper is taken up with different methods of approximating to the values of this integral within required limits, with which we need not here occupy ourselves. Bayes, or perhaps we should rather say Price, seems to have confounded the probability thus determined, with the probability that an event which has been already observed m times in $p + q$ experiments, will happen again. The difference between the two is obvious; and the reader has already seen the process for determining the latter.

81. The celebrated question, known as the Petersburg Problem, has been already mentioned: this name was given, on account of its having been proposed by Daniel Bernoulli in the Petersburg Transactions; much of the discussion it occasioned might have been spared if the real meaning of the results of the calculations of probability had been kept steadily in view. The difficulty of that question was supposed to consist in this, that no person could be supposed willing to pay the amount which the condition of the game pointed out as equal to his expectation, which after all amounts to no more than saying, that a game can be contrived of too ruinous a nature for the taste even of the most inveterate gamester. It has been well remarked by Buffon, that the science of probabilities never professed to make the condition of a gambler the same as if he did not play; it only indicates the events of which we have most reason to expect the recurrence. Condorcet took away everything appearing paradoxical from the result, by an observation he made in a memoir on this subject in 1784. "It may often happen," says he, "that a reasonable man A will refuse to give B a sum b for the chance n of gaining a, although a be greater than $\dfrac{b}{n}$; and the reason may be, because

A has not the opportunity of repeating the venture often enough to repair the loss which may accrue to him in a single trial, and because the sum ventured may be so great that its loss would occasion him an inconvenience, not at all counterbalanced by the advantage he could derive from his contingent gain."[*] These are motives for inducing A to refrain from venturing, but cannot be made elements of the calculation as between him and a speculator B on the opposite event. No underwriter diminishes, or ought to diminish, his premium, on account of the small fortune of the party whose indemnity he guarantees.

82. There have been, however, some writers of great celebrity, who have taken an opposite view of this question; and although there can be no doubt of the fallacy of their reasonings, a notice of them must not be omitted in an historical account. D'Alembert instanced this Petersburg problem as tending to throw doubt on the universally admitted rule, that in every game the

eposit ought to be inversely proportional to the risk, which therefore he roposed to examine. The result of his examination was, that, in his opiion, a very small probability should be considered as none, and might be ntirely disregarded. He illustrates this, by supposing "Peter to play with ames, on this condition, that if a tossed halfpenny fall head, in the hunredth toss, and not before, he is to receive from James 2^{100} crowns, in which ase the ordinary rule would determine Peter to give James one crown at ie beginning of the game. I say, Peter ought not to give this crown, beiuse he will lose it *certainly*,—because head will fall *certainly* before the)0th toss, although not *necessarily*."* Again, he says, " We must distinuish between what is *metaphysically*, and what is *physically* possible. In ie first class is everything whose existence does not imply an absurdity; in ie second, everything whose existence not only does not imply an absurdity, at even implies nothing too extraordinary, and beyond the daily course of rents. It is *metaphysically* possible that two sixes may be thrown on two ce a hundred times in succession; but it is impossible *physically*, because has never happened, and never will happen." In the same memoir he lvances the opinion, that the oftener an event has already happened in iccession, as, for instance, the oftener a halfpenny has already successively llen head, the less is the probability that it will fall head in the next trial. is rather singular that he did not from the first observe, that the extension ' this principle to its utmost limit, namely, to the case in which the halfnny should always have fallen head, would oblige us, according to his own le, to class the arrival of tail among the things physically impossible, hich never have happened, and which therefore we have no reason to beve ever will happen ; and yet, according to his present argument, it will : precisely in this case that tail will be most likely to happen in the next al. A sounder principle might have suggested to him, that so far as our dgment is determined solely by the supposed repetition, we should be dissed, on that very account, to expect rather the recurrence of head, the tener it has already appeared, because that very inequality would seem to int out an inequality in the sides favouring that event. The real cause iy this effect in ordinary cases is not produced, is that we tacitly refer to, d are influenced by, the great number of times in which head and tail have lowed each other indiscriminately, as well as to all the other reasons we ve for believing the two sides similarly circumstanced, and the probability sing from this of the perfect indifference of the sides is far from being out ighed by the results of a few sequences. Another error, not less extraoriary, was made by the same celebrated writer in the consideration of)eated experiments. If a player undertook with a halfpenny to throw head two trials, D'Alembert observed that there were but three possible cases : ad in the first trial; tail in the first, and head in the second; tail in both. He, :refore, asserted that the chance in favour of the player should be taken at ⅔, i not ¾, according to the ordinary rule, in which the combination of head own twice is taken into the account, " because as soon as head is thrown the it time, it is as useless as ridiculous to throw the piece again; for the result the second throw has no effect upon the game, and is as foreign to it as if, tead of throwing the piece again, the players had gone to Rome." D'Alemt's mistake lies in supposing that his opponents were not as much aware this as himself. It is true that in this game there would be only three ssible cases, but they would not be similarly circumstanced, which it is :essary that they should be, before an enumeration of them can furnish us

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* *Opuscules Mathématiques*, vol. ii.

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with a measure of probability; and the superior probability of head falling the first time, as compared with either of the other two combinations mentioned by him, can be accurately allowed for only by taking the sum of all the ways in which one of two conflicting events may occur in two experiments. As to D'Alembert's farther observations on the possible difference in the law of facility of sequence of any set of events, the only answer that can be given is, that when any such difference is observed, it ought undoubtedly to form an element of the calculation of probabilities; but to suppose, as he seems to have done, that until such law is determined we are unable to estimate them, is to misapprehend entirely the meaning of the results we profess to deduce from it.

83. Laplace inserted several memoirs on the subject of probabilities in the Memoirs of the French Academy, which he afterwards embodied in his splendid work, "Théorie Analytique des Probabilités," in which he also gave the calculus of generating functions. The principal application which he there makes of it, is to the solution of the equations of differences to which he reduces the questions of probability, by considering how the chances vary at each succeeding step. This is, in fact, the method, of which one of the simplest instances may be seen in Pascal's solution of the problem of points, although it is there put in rather a different form. Laplace's work contains the application of the theory to a variety of most intricate and interesting questions; and independently of the results he has obtained, this book is in the last degree valuable, from the specimens of refined and beautiful analysis it affords. Besides the authors here mentioned, a great number have composed works on the subject of probability, not very remarkable for the introduction of new principles or methods. The principal attention of English writers has been directed to compilations on the subject of annuities; and it is very much to be regretted that, with a few exceptions, a wanton and barbarous scheme of notation should conceal whatever may be valuable in their writings, nearly as much as if they were written in an unknown language.

84. The first complete tables of life annuities constructed in this country from Halley's and Demoivre's theory were by John Richards, of which the edition in the British Museum is dated 1730.* It contains the following short but curious historical sketch of the erroneous methods it was intended to supersede. "In valuing three lives absolute in copyhold estates, the general rule was, formerly, to reckon it as a lease of twenty-one years certain, which, by the tables for that purpose, at 5 per cent., is worth, in ready money, 12·82 years value and no more for three lives, the first of which they esteemed worth 6 years, the second 4, and the third 2·82 ; so that to renew two lives in reversion of one would cost 7 years, or one in reversion of two, three years' value. And this was the constant expectation, what age soever the life or lives in esse were of at the time of renewing. Whether this estimation of the value of leases arose from the Act of 32 Henry VIII., or was in use before, I know not; but it is there enacted, that a lease for more than twenty-one years, or three lives, is void: by which it seems as though three lives and twenty-one years were reckoned an equal duration,† the contrary of which was very evident even before any experiments were made concerning the duration of life, and therefore this way of computing was corrected by another, which is likewise in several respects erroneous. By this other method (which is still in practice) a lease for one life may be reckoned equivalent to one of 9, 10, 11, or 12

* Gentleman's Steward Instructed. London, 1730.
† It seems more likely that the framers of the Act were guided by the pre-existing popular prejudice, than that they gave rise to it.

years, &c.; that for two lives at 17, 19, 21, or 23 years, &c.; that for three lives as a lease of 24, 27, 30, or 33 years, &c.; and though this latter method is a little more plausible than the former, on account of the steward's liberty of choosing which of these proportions he pleases, yet I cannot see any analogy that this bears to the reason of the thing. So that at best it is but only groping in the dark."

85. The old tables, to which Richards here alludes, are frequently referred to in the treatises of that day, under the name of Æcroid's Tables: the time at which their author lived was not even then accurately known, but is conjectured to have been about the time of Henry VIII.'s reign, as the interest of money when they were compiled was rather more than 10 per cent. The slightly improved method which Richards mentions as then still in practice, was suggested in an anonymous treatise entitled "Tables for renewing and purchasing Leases of Lives," first published at Cambridge about 1685. This is the book which is often cited as Newton's "Treatise on Life Annuities," but with which he was no otherwise concerned than as it bears his approbation as Lucasian Professor on the title-page, which is couched in the following terms:—"The method of this book is correct, and the numbers computed with sufficient accuracy, as I judge from re-calculating several of them."[*] There are no other traces that Newton meddled with this subject. In this treatise Æcroid's tables are said to have been calculated at $11l. 3s. 6\frac{6}{7}d.$ per cent. The tables which Richards published are calculated at different rates, from 4 to 8 per cent., and are given for all ages, from five to five years on one life, and from ten to ten on two, and on three joint lives. Since that period the principal improvement of such tables has consisted in more careful and extensive registers of deaths to furnish the requisite data for their construction: the only addition to their theory has been in the suggestion, that such registers ought only to be considered as furnishing the results of a number of experiments: consequently, that the ratios given by them ought not to be immediately employed as probabilities *à priori,* but used as in the theory given in page 37.[†] An excellent account may be found of the authors who have treated of questions connected with annuities in the article MORTALITY, in the supplement to the "Encyclopædia Britannica."

86. The first tables of mortality were, in fact, formed by Dr. Halley from the registers of Breslau in Silesia, and are given in the Transactions of the Royal Society for 1693, art. 1. The next author who treated of this subject is William Kerseboom, who published at the Hague, in 1730, a tract, entitled, "Eerste Verhandeling tot een Proeve om te weeten de probable menigte des volks in de provintie van Hollandt en Westvrieslandt." An account of this work is given by Mr. Eames in the Philosophical Transactions for 1738. In 1742 Kerseboom published two other tracts upon the same subject, an account of which is given by Mr. Van Rixtel in the Philosophical Transactions for 1743. Kerseboom's table of mortality was formed from registers of many thousand life annuitants in Holland and West Friesland, which had been kept there from 125 to 130 years previous to the date of his publication.

87. M. Desparcieux published, in 1746, his "Essai sur les Probabilités de la Durée de la Vie Humaine," in which he gave several tables of mortality, constructed from the lists of nominees in the French tontines and from the

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* Methodus hujus libri rectè se habet; numerique, ut ex quibusdam ad calculum revocatis, judico, satis exactè computantur. Is. Newton, Math. Prof. Luc.

† When insurances on lives began to be established in the beginning of the last century, their true principles were so little understood or acted upon, that every insurer, of whatever age he might be, paid the same premium, the only restriction being, that his life should lie between five and sixty years.

· mortuary registers of different religious houses. The Northampton T;
as they are called, were long the only tables in use in this country; they
given by Dr. Price in his "Observations on Reversionary Payments," i
was published in 1771: the following extract will serve to explain the m
in which they were formed, vol. 2, p. 94. "In this town (Northam;
" containing four parishes, namely, All Saints', St. Sepulchre's, St. Giles'
" St. Peter's, an account has been kept ever since the year 1741 of the n;
" of males and females that have been christened and buried, dissent;
" cluded, in the whole town. And in the parish of All Saints, contaiini
" greatest part of the town, an account has been kept since 1735 of th
" at which all have died there.

Christened $\begin{cases} \text{males} & 2152 \\ \text{females} & 2066 \end{cases}$ 4220   Buried $\begin{cases} \text{males} & 2377 \\ \text{females} & 2312 \end{cases}$ 46{

Of these died

Under two years of age	1529	50 and 60	...384
Between 2 and 5	362	60... 70	...378
5...10	201	70... 80	...358
10...20	189	80... 90	...199
20...30	373	90...100	... 22
30...40	329		
40...50	365	Total	...4689.

"The XVIIth Table in this volume is the genuine table of observa;
" Northampton, from which may be calculated the true probabilit
" values of lives in that town." To the preceding paragraph is added tl
" In the fourth edition of this treatise the following corrections were mad
" table; first, the table printed in the first three editions having been
" from the Northampton bills for 36 years, this table was rendere;
" more correct in consequence of being formed from the same bil
" years. Secondly, the bills give the number dying annually betweei
" 30 greater than between 30 and 40; but this being a circumstanc
" does not exist in any other register of mortality, and, undoubtedly, (
" some accidental and local causes, the decrements were made equal
" 22 and 40; preserving, however, the total of deaths between 20
" the same that the bills give them. Thirdly, the bills giving only the
" deaths under 2 years of age and between 2 and 5, the propor
" deaths for every particular year between 2 and 5, and for every qt
" a year after birth till one year of age, were made the same nearly
" Chester register makes them."

Such are the alterations which Dr. Price made in the data whi
presented to him, and he reduced the table of mortality to the radix
why he chose this number in preference to any other we have not b;
to discover. Dr. Price has also neglected to inform us what met
made use of to interpolate the living at those ages, between every te;
which are not given by the observations.

88. Such is the history of the Northampton Tables. We shall no'
Dr. Price's observations on the Chester Tables.

" Chester is a healthy town, of moderate size, where the births
" many years a little exceeded the burials; and the register to which
" had the particular advantage of being under the direction of Dr. H;
" its founder as well as conductor. As it gives an accurate account
" distempers of which all the inhabitants die in every season and at ev;
" it contains much physical instruction; but my views lead me only
" notice of that part of it which gives the law according to which b;

rates in all its different stages, both among males and females. Concerning these tables it is necessary I should make the following observations. "The table for females must be considered as particularly correct, because the number of females born and buried in Chester are very nearly equal. On the contrary, the number of males born being about an eighth greater than the number buried, it follows that, in the table of decrements for males the number of the living, and, consequently, the probabilities of living at every age for the last 10 or 15 of the first years of life, must be given too low."

89. Dr. Price characterises Dr. Haygarth as an able and ingenious physician, and it appears that he made a survey of the ten parishes of Chester with great care in 1774, at which time the population consisted of 6697 males and 8016 females.

The table of mortality formed by Dr. Haygarth, from the observations at Chester, is given at length in Dr. Price's Treatise on Reversionary Payments, vol. ii. It distinguishes the sexes, which the Northampton Table does not; it contains 4006 observations, while Carlisle only furnished to Mr. A. Milne 1840, a number too small to admit of subdivision. The Chester observations were, probably, communicated to Dr. Price after those at Northampton, which may have been the reason why he made more use of the latter, probably also as they were rather the more favourable of the two, he wished to keep on the safe side. Dr. Haygarth has given different tables of observations in the Transactions of the Royal Society, in which the deaths are classed from 5 years to 5 years, and the diseases by which they were occasioned are also stated. As Dr. Haygarth was a physician practising in Chester at the time he collected these observations, he had great opportunities of obtaining exact information. Dr. Haygarth states distinctly, that all the numbers dying at every age were taken just as the register gave them, except in the case of 22 females above the age of 80, of whom the age was not closely specified.

It is much to be regretted that no registry of births, marriages, and deaths exists in this country, which would furnish very valuable statistical information. The act of the 52 Geo. III., for the better regulating and preserving parish and other registers of births, baptisms, marriages, and burials in England, has, indeed, a clause by which any person making false entries, or false copies of entries, is to be adjudged guilty of felony, and transported for fourteen years. Another clause which follows immediately after, directs that one half of the penalties levied in pursuance of this act shall go to the informer and the remainder to the poor of the parish. The returns of the weekly burials, which are made by the clerks within the bills of mortality, do not appear to be sent regularly to the parish clerk's office, so that it is difficult to ascertain the effect of the seasons or the weather in producing deaths. In these returns the number of marriages is not stated, nor are the burials of males and females discriminated.

90. We have before alluded to the error which arises in a table of mortality considered as furnishing the probabilities of life, from the supposition that the population has been stationary during the century previous to the observation, and we have explained the method which should be adopted in order to get rid of this when we know the actual increase. The accuracy of the Chester observations is such as to make it desirable to take into account this circumstance. The births in all England in the year 1700, according to the *Parliamentary Reports*, were 138,979, and in 1780, 201,310, making a *mean annual rate of increase* 1.0046; in the county of Chester, taken by itself, in 1700, they were 2650, and in 1780, 4592, making the mean

annual rate of increase 1.0061. We may, therefore, suppose the births to have increased in geometrical progression, during the century previous to Dr. Haygarth's observations, at the rate of 1.005, without fear of an error which can disturb the accuracy of our results. The deaths at the same time were about equal to the deaths forty years previously, a result which is confirmed by direct calculation. These data are sufficient to correct the table of mortality, and it is obvious that the error of our hypothesis is altogether of an order to be neglected, for a small inequality in the rate of increase will not affect the result, unless it be of long period.

91. Table (1), page 56, contains the observations of deaths by Dr. Haygarth at Chester.

Table (2) has been calculated upon this hypothesis, namely, that the births increased during the century previous to Dr. Haygarth's observation in a geometric progression, of which the common ratio was 1.005.

Table (3) shows the values of annuities on such lives.

Table (4) shows the values of single premiums for insuring £1. payable at death; and

Table (5) shows the values of annual premiums for insuring £1. payable at death.

Tables (3), (4), and (5), have been calculated from Table (2) by Mr. David Jones of the Royal Exchange Assurance Company.

92. Mr. Finlaison has recently published very extensive tables of mortality, formed from the government tontines and annuitants, which are rendered extremely valuable by the accuracy of the materials from which they have been deduced, and by the very great care and attention which have been bestowed on them by the author.

Mr. Finlaison (in his valuable report to the Lords of the Treasury) explains at length the manner in which he made use of the records of the tontines. Mr. Finlaison observes, " that the facts shown in these observa-" tions, bear conclusive testimony that the rate of mortality in England has, " during the last century, diminished in a very important degree, on each sex " equally, but not by equal gradations, nor equally at all periods of life ; and " that while in regard to the males it seems in early and middling life to have " remained for a long time as it stood about fifty years ago, in respect of the " females it has during the same time visibly and progressively diminished " to this day by slight but still sensible gradations."

Whether life has generally improved or not, it is certain that epidemics are of much less frequent occurrence now than they were formerly, which circumstance must have a very favourable influence.

93. Mr. Griffith Davies has published tables of annuities taken from statements of Mr. Morgan, in his addresses to the general courts of the Equitable Society, and in notes added by him to the latter editions of Dr. Price's " Observations on Reversionary Payments." In Mr. Morgan's address to the general court held on the 24th April, 1800, he stated that the decrements of life among the members of the Equitable for the preceding thirty years, had been to those of the Northampton

from 10 to 20 as 1 to 2   from 40 to 50 as 3 to 5
20 .. 30 .. 1 .. 2   50 .. 60 .. 5 .. 7
30 .. 40 .. 3 .. 5   60 .. 80 .. 4 .. 5

which statement is confirmed in his subsequent addresses. In a recent publication, Mr. Morgan admits that he was not then aware of the great number of instances in which there are several policies upon one and the same life, but this circumstance cannot very materially affect Mr. Davies'

calculations. Such statements as these, although not so detailed as might be wished, sufficiently prove that in the Equitable Society, the rate of mortality is considerably less than that given by the Northampton Table.

94. Mr. Babbage, in a work entitled "A Comparative View of the various Institutions for the Assurance of Lives," has examined the advantages which are presented by the different insurance offices in this metropolis. It is not our intention to follow him in this inquiry, which is rendered very intricate from the complicated manner in which some of the offices make returns to the assured of a portion of the immense profits which they accumulate, instead of charging, which is obviously a simpler method, the real value at first.

The offices which use the Northampton Table as the basis of their calculations are the

Albion,	Law Life,
Atlas,	London Life Association,
Eagle,	Pelican,
Exchange, Royal,	Provident,
Globe,	Rock,
Imperial,	Westminster.

95. The doctrine of fire and sea insurances seems to be at present nearly in the same state in which that of life insurances was at the beginning of the last century. Montucla mentions a treatise on the subject of ship insurances by Montandouin, a merchant of Nantes, of which he speaks in terms of commendation, and seems to intimate that the publication of this work drew the attention of the Académie des Sciences. That learned body proposed the theory of maritime insurances as a prize question in 1783, 1785, and in 1787, but without much success. None of the essays received were thought to deserve the prize, but, on the last occasion, half the prize of 6000 livres was divided between Lacroix and Bicquilly, two of the competitors. The remaining 3000 livres were intended to be offered, in 1791, for the best tables of premiums for maritime insurance, but the revolution intervened to prevent any adjudication of it. All our present knowledge on this subject seems to be confined to the personal experience of the underwriters.

96. Another extensive application of the theory of probability has been made by Condorcet, at the instance of the enlightened financier Turgot. In a work entitled "Essai sur la Probabilité des Décisions," Condorcet has investigated and compared the probabilities of error in the decisions pronounced by tribunals more or less numerous, and various schemes for determining the verdict. Connected with the same question is the inquiry into the best mode of collecting votes in elections, in which more than two conflicting propositions are presented to each elector. Condorcet has examined in detail the respective advantages and disadvantages of electing by a simple majority, by a majority exceeding a given number, or by a number proportional to the whole number of voters, with many others. He arrives at the conclusion that the best mode of electing is by a majority not below a given number of a single assembly.

Age.	Males.	Deaths.	Females.	Deaths.	Age.	Males.	Deaths.	Females.	Deaths.
0	1927	438	2139	368	50	558	16	752	15
1	1489	180	1771	181	51	542	16	737	14
2	1309	107	1580	127	52	526	16	723	14
3	1202	67	1463	77	53	510	16	709	14
4	1135	34	1386	53	54	494	15	695	14
5	1101	30	1333	30	55	479	14	681	13
6	1071	24	1303	10	56	465	14	668	13
7	1047	18	1285	11	57	451	14	655	13
8	1029	11	1274	9	58	437	14	642	15
9	1018	8	1265	7	59	423	16	627	15
10	1010	6	1258	6	60	407	19	612	20
11	1004	5	1252	6	61	388	22	592	25
12	999	5	1246	7	62	366	22	567	25
13	994	6	1239	7	63	344	22	542	25
14	988	6	1232	8	64	322	20	517	21
15	982	7	1224	9	65	302	16	496	17
16	975	9	1215	10	66	286	13	479	15
17	966	10	1205	11	67	273	11	464	15
18	956	11	1194	12	68	262	11	449	16
19	945	11	1182	11	69	251	13	433	20
20	934	11	1171	10	70	238	16	413	25
21	923	11	1161	10	71	222	22	388	30
22	912	12	1151	10	72	200	22	358	30
23	900	12	1141	11	73	178	21	328	30
24	888	12	1130	12	74	157	18	298	27
25	876	13	1118	16	75	139	15	271	23
26	863	13	1102	16	76	124	12	248	22
27	850	13	1086	16	77	112	11	226	21
28	837	12	1070	16	78	101	11	205	21
29	825	11	1054	16	79	90	10	184	21
30	814	10	1038	13	80	80	10	163	21
31	804	9	1025	13	81	70	10	142	21
32	795	10	1012	13	82	60	9	121	21
33	785	10	999	13	83	51	8	100	21
34	775	10	986	13	84	43	7	79	18
35	765	11	973	14	85	36	6	61	12
36	754	11	959	14	86	30	5	49	8
37	743	12	945	14	87	25	4	41	6
38	731	12	931	14	88	21	4	35	4
39	719	13	917	15	89	17	3	31	4
40	706	13	902	15	90	14	3	27	4
41	693	14	887	15	91	11	3	23	4
42	679	14	872	15	92	8	3	19	4
43	665	15	857	14	93	5	2	15	4
44	650	15	843	15	94	3	2	11	4
45	635	15	828	15	95	1	1	7	3
46	620	15	813	15	96			4	3
47	605	15	798	15	97			1	1
48	590	16	783	16					
49	574	16	767	15					

MALES.		FEMALES.		Age.	MALES.		FEMALES.	
Living.	Deaths.	Living.	Deaths.		Living.	Deaths.	Living	Deaths.
10000	1778	10000	1351	50	3675	92	4302	77
8222	739	8649	670	51	3583	93	4225	72
7483	445	7979	474	52	3490	94	4153	73
7038	283	7505	291	53	3396	94	4080	73
6755	149	7214	203	54	3302	89	4007	73
6606	133	7011	118	55	3213	84	3934	69
6473	108	6893	73	56	3129	84	3865	69
6365	84	6820	47	57	3045	85	3796	70
6281	55	6773	40	58	2960	85	3726	80
6266	42	6733	32	59	2875	97	3646	80
6184	35	6701	28	60	2778	113	3566	105
6149	30	6673	29	61	2665	131	3461	130
6119	30	6644	33	62	2534	131	3331	131
6089	35	6611	33	63	2403	131	3200	132
6054	34	6578	37	64	2272	121	3068	112
6020	40	6541	41	65	2151	100	2956	93
5980	48	6500	45	66	2051	83	2863	83
5932	53	6455	49	67	1968	72	2780	83
5879	57	6406	54	68	1896	72	2697	89
5822	57	6352	50	69	1824	84	2608	110
5765	58	6302	46	70	1740	102	2498	136
5707	59	6256	46	71	1638	137	2362	163
5648	63	6210	46	72	1501	137	2199	164
5585	63	6164	51	73	1364	132	2035	165
5522	63	6113	55	74	1232	116	1870	150
5459	69	6058	72	75	1116	96	1720	129
5390	69	5986	72	76	1018	81	1591	124
5321	69	5914	78	77	937	76	1467	120
5252	64	5841	73	78	861	76	1347	120
5188	61	5768	73	79	785	70	1227	121
5127	56	5695	61	80	715	71	1106	121
5071	51	5634	61	81	644	71	985	122
5020	57	5573	62	82	573	65	863	123
4963	57	5511	62	83	508	59	740	123
4906	57	5449	62	84	449	54	617	107
4849	62	5387	67	85	395	47	510	74
4787	62	5320	67	86	348	42	436	52
4725	68	5253	67	87	306	35	384	41
4657	68	5186	68	88	271	30	343	30
4589	73	5118	73	89	235	30	313	30
4516	73	5045	73	90	205	29	283	31
4443	79	4972	73	91	176	30	252	31
4364	79	4899	73	92	146	30	221	31
4285	84	4826	74	93	116	24	190	32
4201	85	4757	74	94	92	24	158	32
4116	85	4683	75	95	68	17	126	28
4031	86	4608	75	96	51	7	100	26
3945	86	4533	75	97	44	7	74	14
3859	92	4458	80	98	37	7	60	8
3767	92	4378	76	99	30	7	52	8

7	22·5404	23·5549	18·8608	19·5727	16·1187	16·6392	1
8	22·5271	23·4299	18·8776	19·4969	16·1510	16·5924	1
9	22·4078	23·2762	18·8061	19·3972	16·1084	16·5255	1
10	22·2368	23·0890	18·6912	19·2404	16·0296	16·4346	1
11	22·0343	22·8815	18·5495	19·1243	15·9259	16·3288	1
12	21·8066	22·6708	18·3861	18·9761	15·8042	16·2200	1
13	21·5715	22·4675	18·2157	18·8336	15·6761	16·1160	1
14	21·3471	22·2576	18·0550	18·6852	15·5551	16·0067	1
15	21·1117	22·0549	17·8821	18·5426	15·4251	15·9021	1
16	20·8905	21·8599	17·7217	18·4059	15·3047	15·8026	1
17	20·6913	21·6727	17·5797	18·2756	15·1999	15·7084	1
18	20·5041	21·4936	17·4478	18·1520	15·1038	15·6200	1
19	20·3260	21·3266	17·3233	18·0385	15·0143	15·5404	1
20	20·1428	21·1407	17·1944	17·9069	14·9209	15·4468	1
21	19·9580	20·9350	17·0639	17·7622	14·8261	15·3385	1
22	19·7714	20·7228	16·9318	17·6096	14·7301	15·2247	1
23	19·5943	20·5038	16·8077	17·4506	14·6410	15·1052	1
24	19·4124	20·2951	16·6795	17·3001	14·5485	14·9928	1
25	19·2255	20·0937	16·5469	17·1554	14·4522	14·8854	1
26	19·0558	19·9455	16·4290	17·0562	14·3691	14·8176	1
27	18·8819	19·7939	16·3078	16·9544	14·2831	14·7479	1
28	18·7039	19·6426	16·1829	16·8530	14·1943	14·6789	1
29	18·5027	19·4879	16·0378	16·7489	14·0879	14·0079	1
30	18·2845	19·3298	15·8778	16·6422	13·9683	14·5349	1
31	18·0410	19·1253	15·6952	16·4953	13·8207	14·4268	1
32	17·7710	18·9147	15·4889	16·3428	13·6677	14·3140	1
33	17·5144	18·7013	15·2934	16·1878	13·5158	14·1968	1

TABLE III.—continued.

Age	3 per cent. a_m, $r = \frac{1}{1.03}$		4 per cent. a_m, $r = \frac{1}{1.04}$		5 per cent. a_m, $r = \frac{1}{1.05}$		6 per cent. a_m, $r = \frac{1}{1.06}$		Age
m	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	m
50	13·0950	14·5914	11·8057	13·0735	10·7202	11·8030	9·7978	10·7297	50
51	12·8342	14·3031	11·5932	12·8442	10·5453	11·6190	9·6523	10·5807	51
52	12·5715	13·9876	11·3782	12·5895	10·3676	11·4115	9·5041	10·4100	52
53	12·3070	13·6650	11·1609	12·3274	10·1873	11·1964	9·3531	10·2320	53
54	12·0371	13·3314	10·9378	12·0541	10·0012	10·9704	9·1966	10·0435	54
55	11·7417	12·9861	10·6904	11·7688	9·7921	10·7327	9·0184	9·8437	55
56	11·4186	12·6145	10·4166	11·4581	9·5577	10·4705	8·8161	9·6206	56
57	11·0856	12·2291	10·1320	11·1330	9·3125	10·1939	8·6029	9·3832	57
58	10·7460	11·8326	9·8399	10·7959	9·0589	9·9047	8·3809	9·1339	58
59	10·3956	11·4550	9·5360	10·4741	8·7930	9·6281	8·1464	8·8935	59
60	10·0814	11·0683	9·2637	10·1374	8·5551	9·3363	7·9366	8·6386	60
61	9·8241	10·7409	9·0428	9·8628	8·3637	9·1005	7·7697	8·4347	61
62	9·6420	10·4949	8·8907	9·6576	8·2359	8·9285	7·6616	8·2897	62
63	9·4726	10·2523	8·7504	9·4551	8·1191	8·7587	7·5641	8·1468	63
64	9·3194	10·0142	8·6251	9·2563	8·0166	8·5923	7·4802	8·0072	64
65	9·1389	9·7055	8·4747	8·9913	7·8910	8·3638	7·3751	7·8092	65
66	8·8720	9·3213	8·2434	8·6547	7·6895	8·0672	7·1987	7·5466	66
67	8·6236	8·8876	7·9347	8·2696	7·4145	7·7235	6·9525	7·2382	67
68	8·1127	8·4360	7·5655	7·8651	7·0809	7·3592	6·6495	6·9066	68
69	7·6859	7·9856	7·1787	7·4588	6·7284	6·9909	6·3266	6·5731	69
70	7·2987	7·5874	6·8263	7·0988	6·4059	6·6637	6·0300	6·2743	70
71	6·9858	7·2649	6·5414	6·8078	6·1450	6·3997	5·7898	6·0337	71
72	6·8521	7·0976	6·4240	6·6050	6·0412	6·2178	5·6974	5·8698	72
73	6·7665	6·8328	6·3520	6·4227	5·9803	6·0548	5·6458	5·7234	73
74	6·7163	6·6588	6·3139	6·2690	5·9521	5·9185	5·6257	5·6021	74
75	6·6368	6·4567	6·2489	6·0984	5·8994	5·7564	5·5831	5·4561	75
76	6·4940	6·1897	6·1245	5·8453	5·7907	5·5343	5·4878	5·2524	76
77	6·2670	5·9142	5·9201	5·5930	5·6058	5·3022	5·3200	5·0981	77
78	6·0248	5·6343	5·7004	5·3349	5·4056	5·0633	5·1369	4·9162	78
79	5·8063	5·3709	5·5024	5·0909	5·2254	4·8364	4·9723	4·6044	79
80	5·5660	5·1373	5·2927	4·8736	5·0239	4·6342	4·7867	4·4146	80
81	5·3651	4·9414	5·0997	4·6914	4·8568	4·4682	4·6333	4·2544	81
82	5·2108	4·8092	4·9609	4·5687	4·7313	4·3488	4·5198	4·1471	82
83	5·0538	4·7768	4·8195	4·5413	4·6035	4·3258	4·4040	4·1266	83
84	4·8694	4·9009	4·6709	4·6644	4·4689	4·4469	4·2817	4·2462	84
85	4·7246	5·1070	4·5218	4·8688	4·3338	4·6488	4·1591	4·4153	85
86	4·5236	5·1530	4·3379	4·9229	4·1651	4·7098	4·0040	4·5118	86
87	4·2988	5·0263	4·1306	4·8132	3·9736	4·6149	3·8268	4·4302	87
88	3·9996	4·7960	3·8506	4·6041	3·7111	4·4249	3·5803	4·2573	88
89	3·7507	4·4133	3·6181	4·2471	3·4936	4·0914	3·3765	3·9453	89
90	3·4285	4·0275	3·3135	3·8853	3·2051	3·7514	3·1029	3·6253	90
91	3·1133	3·6587	3·0188	3·5878	2·9199	3·4235	2·8310	3·3156	91
92	2·8656	3·2971	2·7785	3·1954	2·6959	3·0989	2·6175	3·0075	92
93	2·7149	2·9561	2·6369	2·8654	2·5627	2·7848	2·2921	2·7080	93
94	2·5258	2·6539	2·4578	2·5835	2·3926	2·5162	2·3307	2·4519	94
95	2·5199	2·4278	2·4582	2·3692	2·3992	2·3130	2·3425	2·2591	95
96	2·4605	2·1508	2·4068	2·1047	2·3589	2·0601	2·3107	2·0172	96
97	1·9375	1·9937	1·9037	1·9579	1·8708	1·9232	1·8390	1·8896	97
98	1·3731	1·5337	1·3544	1·5113	1·3360	1·4905	1·3182	1·4709	98
99	·7449	·8215	·7872	·8186	·7802	·8059	·7288	·7968	99

TABLE IV.—SINGLE PREMIUM required to secure the payment of 1l. at the end of the year in which the life shall fail.

Age. m	3 per cent.		4 per cent.		5 per cent.		Age. m
	Males.	Females.	Males.	Females.	Males.	Females.	
0	·50361	·45482	·44821	·39860	·41097	·36179	0
1	·41464	·38543	·35070	·32310	·30858	·28302	1
2	·37050	·34636	·30198	·28027	·25725	·23815	2
3	·34252	·31612	·27069	·24673	·22396	·20270	3
4	·32568	·29840	·25142	·22661	·20311	·18108	4
5	·32046	·28730	·24482	·21355	·19553	·16668	5
6	·31631	·28387	·23930	·20877	·18898	·16089	6
7	·31436	·28481	·23612	·20874	·18482	·16004	7
8	·31475	·28845	·23548	·21166	·18329	·16227	8
9	·31822	·29293	·23823	·21549	·18531	·16545	9
10	·32320	·29838	·24265	·22041	·18911	·16978	10
11	·32910	·30442	·24810	·22599	·19400	·17482	11
12	·33573	·31056	·25438	·23169	·19980	·18000	12
13	·34258	·31648	·26093	·23717	·20590	·18495	13
14	·34911	·32259	·26716	·24288	·21166	·19016	14
15	·35597	·32850	·27377	·24836	·21785	·19514	15
16	·36241	·33418	·27993	·25362	·22359	·19988	16
17	·36822	·33963	·28540	·25863	·22858	·20436	17
18	·37367	·34485	·29047	·26338	·23315	·20857	18
19	·37885	·34971	·29526	·26775	·23741	·21236	19
20	·38419	·35513	·30022	·27273	·24186	·21682	20
21	·38957	·36112	·30523	·27838	·24638	·22198	21
22	·39501	·36730	·31032	·28425	·25095	·22740	22
23	·40017	·37368	·31509	·29036	·25519	·23308	23
24	·40546	·37975	·32002	·29615	·25960	·23844	24
25	·41091	·38562	·32512	·30172	·26418	·24355	25
26	·41585	·38994	·32965	·30553	·26814	·24678	26
27	·42092	·39435	·33432	·30945	·27223	·25010	27
28	·42610	·39876	·33912	·31335	·27646	·25339	28
29	·43196	·40327	·34470	·31735	·28153	·25677	29
30	·43832	·40787	·35085	·32145	·28722	·26024	30
31	·44541	·41383	·35788	·32710	·29387	·26539	31
32	·45327	·41996	·36581	·33297	·30154	·27076	32
33	·46075	·42618	·37333	·33893	·30877	·27625	33
34	·46846	·43258	·38115	·34512	·31636	·28198	34
35	·47643	·43917	·38931	·35155	·32432	·28798	35
36	·48413	·44545	·39717	·35762	·33200	·29360	36
37	·49208	·45191	·40535	·36392	·34005	·29945	37
38	·49964	·45856	·41312	·37044	·34767	·30557	38
39	·50744	·46531	·42120	·37709	·35564	·31182	39
40	·51494	·47174	·42896	·38338	·36330	·31768	40
41	·52267	·47834	·43702	·38989	·37130	·32378	41
42	·53000	·48513	·44462	·39662	·37881	·33013	42
43	·53753	·49211	·45250	·40360	·38665	·33676	43
44	·54473	·49973	·46001	·41133	·39411	·34422	44
45	·55200	·50705	·46764	·41874	·40171	·35134	45
46	·55947	·51449	·47552	·42630	·40960	·35863	46
47	·56701	·52214	·48352	·43414	·41766	·36625	47
48	·57475	·53003	·49178	·44229	·42603	·37421	48
49	·58203	·53763	·49952	·45010	·43388	·38182	49

TABLE IV.—continued.

Age.	3 per cent.		4 per cent.		5 per cent.		Age.
m	Males.	Females.	Males.	Females.	Males.	Females.	m
50	·58947	·54588	·50747	·45871	·44190	·39033	50
51	·59706	·55428	·51565	·46753	·45022	·39910	51
52	·60471	·56347	·52392	·47733	·45869	·40898	52
53	·61242	·57286	·53227	·48741	·46727	·41922	53
54	·62028	·58258	·54085	·49792	·47613	·42998	54
55	·62888	·59264	·55037	·50889	·48610	·44130	55
56	·63829	·60346	·56090	·52084	·49725	·45379	56
57	·64799	·61469	·57185	·53335	·50893	·46696	57
58	·65788	·62623	·58308	·54631	·52100	·48073	58
59	·66809	·63723	·59477	·55669	·53367	·49390	59
60	·67724	·64864	·60524	·57164	·54500	·50780	60
61	·68473	·65803	·61374	·58220	·55411	·51902	61
62	·69001	·66520	·61959	·59009	·56020	·52721	62
63	·69497	·67226	·62498	·59788	·56576	·53530	63
64	·69943	·67920	·62980	·60553	·57064	·54322	64
65	·70469	·68819	·63559	·61572	·57662	·55410	65
66	·71247	·69938	·64449	·62867	·59621	·56823	66
67	·72261	·71201	·65636	·64348	·59931	·58460	67
68	·73458	·72517	·67056	·65903	·61520	·60194	68
69	·74701	·73828	·68543	·67466	·63198	·61948	69
70	·75829	·74988	·69899	·68851	·64734	·63506	70
71	·76740	·75927	·70995	·69970	·65976	·64763	71
72	·77130	·76590	71446	·70750	·66470	·65630	72
73	·77379	·77186	·71723	·71451	·66760	·66406	73
74	·77525	·77693	·71870	·72042	·66895	·67055	74
75	·77757	·78281	·72120	·72737	·67146	·67827	75
76	·78173	·79059	·72598	·73672	·67663	·68884	76
77	·78634	·79862	·73384	·74642	·68544	·69990	77
78	·79539	·80677	·74229	·75635	·69497	·71127	78
79	·80176	·81444	·74991	·76573	·70355	·72208	79
80	·80876	·82124	·75836	·77108	·71315	·73170	80
81	·81461	·82695	·76540	·78110	·72110	·73985	81
82	·81910	·83080	·77073	·78582	·72708	·74530	82
83	·82368	·83174	·77617	·78687	·73317	·74641	83
84	·82846	·82813	·78189	·78214	·73958	·74062	84
85	·83326	·82213	·78762	·77428	74601	·73101	85
86	·83912	·82079	·79470	·77220	·75404	·72810	86
87	·84567	·82448	·80267	·77642	·76316	·73262	87
88	·85438	·83118	·81344	·78446	·77566	·74167	88
89	·86163	·84233	·82238	·79819	·78602	·75755	89
90	·87101	·85357	·83409	·81210	·79976	.77374	90
91	·88020	·86431	·84562	·82547	·81333	·78936	91
92	·88741	·87484	·85467	·83964	·82400	·80481	92
93	·89180	·88477	·86012	·85133	·83035	·81978	93
94	·89731	·89358	·86701	·86217	·83844	·83256	94
95	·89748	·90016	·86699	·87042	·83813	·84224	95
96	·89921	·90823	·86889	·88059	·84005	·85428	96
97	·91444	·91280	·88832	·88623	·86330	·86080	97
98	·93088	·92623	·90945	·90341	·88876	·88140	98
99	·94920	·94695	·93318	·93025	·91761	·91400	99

Age.	3 per cent.		4 per cent.		5 per cent.	
m	Males.	Females.	Males.	Females.	Males.	Femal
0	·02955	·02429	·03124	·02549	·03322	·026
1	·02063	·01826	·02078	·01836	·02125	·018
2	·01714	·01543	·01664	·01498	·01649	·014
3	·01517	·01346	·01428	·01260	·01374	·012
4	·01406	·01238	·01292	·01127	·01214	·010
5	·01373	·01174	·01247	·01045	·01157	·009
6	·01347	·01154	·01210	·01015	·01109	·009
7	·01335	·01160	·01189	·01015	·01080	·009
8	·01337	·01180	·01185	·01033	·01069	·009
9	·01359	·01206	·01203	·01057	·01083	·009
10	·01390	·01238	·01232	·01088	·01110	·009
11	·01428	·01274	·01269	·01123	·01146	·010
12	·01472	·01312	·01312	·01160	·01189	·010
13	·01517	·01348	·01358	·01196	·01235	·010
14	·01562	·01387	·01402	·01234	·01278	·011
15	·01609	·01424	·01450	·01271	·01326	·011
16	·01655	·01461	·01495	·01307	·01371	·011
17	·01697	·01498	·01536	·01342	·01411	·012
18	·01737	·01533	·01575	·01375	·01448	·012
19	·01776	·01566	·01612	·01406	·01482	·012
20	·01817	·01604	·01650	·01443	·01519	·013
21	·01858	·01646	·01690	·01484	·01557	·0135
22	·01901	·01690	·01731	·01528	·01595	·0140
23	·01943	·01737	·01770	·01574	·01631	·0144
24	·01986	·01783	·01810	·01618	·01670	·0149
25	·02031	·01828	·01853	·01662	·01710	·0153
26	·02073	·01861	·01892	·01692	·01745	·0156(
27	·02117	·01896	·01932	·01723	·01781	·0158
28	·02162	·01931	·01974	·01755	·01819	·01616
29	·02215	·01968	·02023	·01788	·01866	·01645
30	·02273	·02006	·02079	·01822	·01919	·01675
31	·02339	·02056	·02144	·01870	·01982	·01720
32	·02414	·02108	·02219	·01920	·02056	·01768
33	·02488	·02163	·02292	·01972	·02127	·01817
34	·02567	·02220	·02369	·02027	·02204	·01870
35	·02650	·02280	·02452	·02085	·02286	·01926
36	·02733	·02339	·02534	·02141	·02367	·01979
37	·02821	·02401	·02622	·02202	·02454	·02036
38	·02908	·02466	·02708	·02263	·02538	·02095
39	·03000	·02534	·02799	·02329	·02628	·02158
40	·03092	·02601	·02889	·02392	·02717	·02217
41	·03189	·02670	·02986	·02458	·02812	·02280
42	·03284	·02744	·03079	·02528	·02904	·02347
43	·03385	·02822	·03179	·02603	·03002	·02418
44	·03484	·02909	·03277	·02688	·03097	·02499
45	·03588	·02996	·03379	·02771	·03197	·02579
46	·03699	·03086	·03487	·02858	·03304	·02663
47	·03814	·03182	·03601	·02951	·03415	·02752
48	·03936	·03284	·03722	·03050	·03534	·02847
49	·04056	·03386	·03839	·03148	·03649	·02947

- **TABLE V.—continued.**

Age.	3 per cent.		4 per cent.		5 per cent.		Age.
m	Males.	Females.	Males.	Females.	Males.	Females.	*m*
50	·04182	·03501	·03963	·03260	·03770	·03049	50
51	·04316	·03622	·04095	·03377	·03900	·03463	51
52	·04455	·03759	·04233	·03513	·04035	·03295	52
53	·04602	·03906	·04377	·03657	·04177	·03437	53
54	·04757	·04065	·04531	·03814	·04328	·03592	54
55	·04935	·04237	·04708	·03986	·04504	·03761	55
56	·05139	·04432	·04913	·04181	·04710	·03956	56
57	·05361	·04646	·05137	·04396	·04935	·04171	57
58	·05600	·04880	·05379	·04632	·05180	·04408	58
59	·05862	·05116	·05645	·04869	·05449	·04647	59
60	·06111	·05377	·05897	·05133	·05704	·04913	60
61	·06326	·05604	·06111	·05360	·05917	·05139	61
62	·06464	·05786	·06265	·05537	·06066	·05310	62
63	·06636	·05974	·06410	·05719	·06204	·05485	63
64	·06778	·06166	·06543	·05904	·06329	·05663	64
65	·06950	·06428	·06708	·06163	·06485	·05918	65
66	·07217	·06776	·06973	·06512	·06746	·06267	66
67	·07587	·07201	·07346	·06942	·07122	·06701	67
68	·08060	·07685	·07829	·07434	·07613	·07201	68
69	·08600	·08216	·08381	·07976	·08177	·07752	69
70	·09137	·08732	·08931	·08502	·08741	·08287	70
71	·09609	·09187	·09414	·08962	·09234	·09752	71
72	·09822	·09529	·09624	·09303	·09440	·09093	72
73	·09963	·09854	·09756	·09626	·09564	·09413	73
74	·10047	·10144	·09827	·09911	·09622	·09692	74
75	·10182	·10498	·09949	·10262	·09732	·10039	75
76	·10431	·10996	·10190	·10763	·████	·10542	76
77	·10848	·11550	·10605	·11322	·10376	·11105	77
78	·11322	·12160	·11078	·11940	·10849	·11731	78
79	·11779	·12783	·11533	·12572	·11301	·12372	79
80	·12317	·13381	·12071	·13179	·11839	·12988	80
81	·12798	·13918	·12549	·13724	·12313	·13542	81
82	·13188	·14301	·12930	·14111	·12686	·13934	82
83	·13606	·14398	·13338	·14200	·13084	·14016	83
84	·14067	·14034	·13788	·13808	·13523	·13597	84
85	·14555	·13462	·14264	·13193	·13986	·12941	85
86	·15191	·████	·14888	·13037	·14599	·12752	86
87	·15960	·13681	·15645	·13356	·15344	·13048	87
88	·17089	·14340	·16770	·13998	·16464	·13672	88
89	·18197	·15560	·17808	·15212	·17492	·14879	89
90	·19668	·16977	·19337	·16624	·19019	·16284	90
91	·21399	·18552	·21068	·18191	·20749	·17845	91
92	·22957	·20359	·22620	·19990	·22295	·19635	92
93	·24006	·22403	·23650	·22025	·23306	·21660	93
94	·25450	·24455	·25074	·24059	·24712	·23678	94
95	·25498	·26260	·25071	·25834	·24657	·25422	95
96	·25985	·28825	·25490	·28363	·25010	·27916	96
97	·31130	·30490	·30593	·29962	·30071	·29447	97
98	·39227	·36571	·38628	·35973	·38046	·35390	98
99	·54417	·51987	·53719	·77515	·53036	·50613	99

The following tables will serve to show how nearly different tables of mortality and different tables of annuities agree.

Tables of Mortality.

Age.	(1.) Despar-cieux.	(2.) North-ampton, Dr. Price.	(3.) Carlisle, Mr. Milne.	(4.) Equita-ble Experi-ence, Mr. Davies.	(5.) Mr. Finlaison's Tables.		(6.) Chester Table.		Age
					Male.	Female.	Male.	Female.	
	Living.	Living.	Living.	Living.	Living.	Living.	Living.	Living.	
0		1000	1000		1000	1000	10000	10000	0
10	830	487	646	2844	896	903	6184	6701	10
20	814	440	609	2705	837	848	5765	6302	20
30	734	415	564	2501	732	777	5127	5695	30
40	657	312	507	2236	644	700	4516	5045	40
50	581	245	439	1937	561	623	3675	4302	50
60	463	174	364	1524	440	539	2778	3566	60
70	310	105	240	1028	288	412	1740	2498	70
80	118	40	95	480	125	210	715	617	80
90	11	3	14	65	.11	52	205	283	90

Annuities at 3 per cent.

Age.	(1.) Despar-cieux.	(2.) North-amp-ton, Dr. Price.	(3.) Carlisle, Mr. Milne.	(4.) Equita-ble Experi-ence, Mr. Davies.	(5.) Mr. Finlaison's Tables.		(6.) Chester Table.		Age.
					Male.	Female.	Male.	Female.	
0			17·320				16·042	17·718	0
10	22·766	20·663	23·512	23·768	20·524	22·312	22·237	23·089	10
20	21·168	18·638	21·694	21·795	19·223	20·720	20·143	21·140	20
30	19·492	16·922	19·556	19·671	17·082	19·174	18·284	19·330	30
40	17·183	14·848	17·143	17·351	14·011	16·111	15·654	17·137	40
50	13·899	12·436	14·303	14·477	10·777	12·560	13·095	14·591	50
60	10·522	9·777	10·491	11·539	7·425	8·638	10·081	11·063	60
70		6·734	7·123	8·285			7·299	7·587	70

These numbers are extracted from the following works:—

(1.) The Doctrine of Life Annuities, by Mr. Francis Bailey, vol. ii. p. 532.
(2.) Observations on Reversionary Payments, by Dr. Price, vol. ii. p. 314.
(3.) A Treatise on the Valuation of Annuities, by Mr. Milne, vol. ii. p. 594.
(4.) Tables of Life Contingencies, by Mr. Griffith Davies.
(5.) These tables are taken from the Report of the House of Commons on Friendly Societies, 1827.
(6.) These values are extracted from Table III. p. 58.

The Table of Mr. Milne agrees very closely with the mean of the columns for males and females in Table (1), and, in fact, it would have been sufficient to have supposed the rate of increase 1·007 in the formation of Table (2) during the last century to render the difference almost insensible.